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Our ref: GRCR/GR 15.19
16 November 2009

Mr. David Archbold,
Managing Director,
Information and Communication Technology Authority,
3rd Floor Alissta Towers,
P.O. Box 2502GT,
Grand Cayman. KY1-1104

Dear Mr. Archbold,

Re: CD 2009-1 – FLLRIC Implementation; and ICT Decision 2008-2 – Decision for the Costing Manual Consultation – Responses to Interrogatories

Cable and Wireless (Cayman Islands) Limited, t/a LIME ("**LIME**") is submitting the attached responses to the following Authority 19 August 2009 interrogatories on the revised forward-looking long-run incremental cost ("**FLLRIC**") models:

- Appendices (Questions 115- 127)

Some of these responses are being submitted in confidence, for the same reasons as set out in our 9April 2009 letter to the Authority, and redacted versions will be provided for the public record.

In addition, LIME is filing the following documents:

- Appendix A1 part I radial dist_1 [int 115]
- Appendix A1 part II radial dist_2 [int 115]
- Appendix IV-FAC-TD Values 07-04-09 conf_revised [int 120]
- Appendix VIII - RF Analysis revised - CONFIDENTIAL [int 121]
- Appendix V-TD LRIC Input 07-04-09 conf_revised [int 120]
- Appendix XII(A) - ########### - confidential [int 124]

We are also filing the following, in response to the Authority's interrogatory 21:

- Appendix F Contact Center - October2009 – conf [int 21]

Finally, we have attached updated confidential versions of the fixed, 2G mobile and 3G mobile models, reflecting the changes made in response to the responses to interrogatories. We will be filing the public versions shortly.

- CYM fixed - updated 09_11_16 Conf
- CYM Mobile 2G - updated 09_11_16 conf
- CYM Mobile 3G - updated 09_11_16 conf

These Appendices are also being submitted in confidence to the Authority, with the exception of Appendices A1 part 1 and part 2. Redacted versions will not be made available for the public record.

We apologize for the delay in filing these documents.

Please do not hesitate to contact the undersigned if you should have any questions.

Sincerely yours,

Cable & Wireless (Cayman Islands) Ltd. d.b.a LIME

'Signed'

_____
Frans Vandendries
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c.c. Anthony Ritch, Country Manager, LIME
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Pete Smith, Regulatory Finance Advisor, LIME
Interested Parties in CD (2009-1)/(2008-2)

115. In LIME's response in Attachment A, Revisions to FLLRIC Model Ordered by the Authority in ICT Decision 2008-02 (8 April 2009), number 2 LIME indicated that Appendix I captures spreadsheet technical information on existing cellsite radial distances plus Google earth maps showing coverage areas. No Google Earth maps were provided to the Authority. Provide the maps.

RESPONSE

LIME apologises for not including these maps in its 8 April 2009 submission to the Authority. These are now attached to this response to interrogatory as Appendix A1 parts 1 and 2.

116. Appendix II – Basics of Radio Planning, Design and Optimization, describes LIME's network design methodology and how a wireless network should be equipped to optimize the Dropped Call Rate (DCR) and other related items. Page 11 of the document lists several Key Performance Indicators (KPIs) that a wireless network should be measured on. Included among these indicators is the DCR. DCR would not appear to be used and the Authority could not find any of the other suggested KPI's in the cost modules. Accordingly, it is unclear how the modules deal with meeting the KPIs. Explain and document the use of KPI's in the 2G or 3G modules.

RESPONSE

LIME believes that there might be some misunderstanding with regards to Appendix II – Basics of Radio Planning, Design and Optimization. LIME’s intention in submitting Appendix II was solely to demonstrate the typical engineering optimization process that is undertaken in rolling out its existing GSM network and in no way implied that the LRIC Mobile models incorporated the optimization process outlined in Appendix II. Clearly such a process is beyond the scope of these LRIC models.

117. In the Appendix III Part II, LIME calculates a weighted index in the 'Weighted Indices" sheet as the sum of: # #% of the index value in January in year T, # #% of the index value in year T, and # #% of the index value in January in year T+1. Provide a rational for this weighting approach.

RESPONSE

The Weighting was applied to the index value to create a smoothed average, as the values provided by the CA Turner Telephone Plant Index (see the "Inputs" sheet, H11 and CB206) are provided twice per year, once in January and the other in July. The two periods often have disproportionate variations in values and the weighted average was used in order to have a single value / index for a particular asset.

118. In Appendix III Part I, sheet 'Indexed Cay assets over 3yrs', the indexed asset values are allocated to network components. To do this, LIME uses various allocation keys (percentages) found in the 'Assumptions and Drivers' sheet.

    a. What is source of the percentages in cells AC6:DW2995 and how where they calculated?

    b. What is the logic behind the grouping of minor cost categories?

    c. A simple average of allocation percentages is calculated. Provide a rational for this approach.

RESPONSE

A. The source of the percentages used in the Assumptions and Drivers sheet are based on the most recent Cayman FAC model, which is the 2006 version previously submitted to the Authority. The percentages were obtained from the Fixed Asset Register file and using the allocations of network assets to network components and services.

B. LIME is not entirely clear which group of minor cost categories the Authority might be referring to in this question. LIME, nonetheless, ventures a response assuming the categories in cells D6:H25 are the ones in question.

These categories were obtained from LIME's Fixed Asset Register which is managed by LIME's Finance Department. Therefore, the categories are based on international accounting standards specifically designed for the management of assets in a telecommunication business.

C. The simple average approach is used for significant network asset categories, as they generally comprise of numerous individual assets. In order to produce a representative percentage for a large group of assets allocated across several network components, the simple average approach provides the least complex method of arriving at an unskewed value per network component

119. In Appendix III, sheet 'Indexed Cay assets over 3yrs' LIME lists "Electro Mechanical Switching" as one of the asset categories included in the value recalculation. Identify what electro mechanical technology would be used in any forward looking telecommunication network cost model.

RESPONSE

In ICT Decision 2008-02, section 231, the Authority clearly makes a distinction between “Forward Looking Investments” and “Current Investments”. The Authority requested that LIME revalue its Assets as captured in its Fixed Asset Register (FAR) without specifying how those assets should be revalued. LIME via correspondence and telephone discussion pointed out to staff of the Authority that such an exercise can be very complex and costly. Nonetheless, LIME in an effort to keep the process of revaluation as simple as possible chose the method of indexation based on the AUS standard. LIME’s FAR contains historical assets over 3 years old such as “Electro Mechanical Switching” which were revalued on the basis of the AUS index. These revalued assets were not intended to reflect “forward looking assets” nor are they being used in the model for anything other than developing expense factors as requested by the Authority.

120. In Appendix IV, the FAC/ABC output file 'FAC-TD Values 07-04-09 conf_v1' LIME has used the separate fixed and mobile WACC values instead of using the WACC of 9.5% in both the fixed and mobile modules as directed by the Authority paragraph 213 of Decision 2008.2. Revise the calculations.

RESPONSE

LIME has adjusted these values as per the Authority’s directive and they now reflect 9.5% for both Mobile and Fixed LRIC models. Revised Appendices IV and V are attached.

121. In Appendix VIII LIME applies a routing factor # # for services that use the element # # with the exception of the # # which is # #. In LIME's justification of the routing factor of # # it notes (cell D84 in the 'Mobile RFs' sheet) that #

#. Given the subscriber weighted approach to calculating the routing factor of # # and the quote above, explain the choice of # # as an appropriate routing factor for # # use of the # #.

RESPONSE

Given that #

#, LIME submits that the appropriate routing factor for this call type is # #. In this case, the appropriate routing factor should be # #. LIME has made the adjustment and therefore resubmits Appendix VIII. The LRIC mobile model now reflects this change.

122. Provide detailed documentation that shows which information is used from the Appendix XI worksheet and where it is applied in the FLLRIC model.

RESPONSE

This Appendix file is the working file that captures the input actual volumes of the services shown in the "Volume Input for TD" sheets of both the Mobile and Fixed LRIC models in ranges X2:Z13 and X2:AB37 respectively. The following explains where in the volume ranges these values were utilized:

- Sheet 'VOIP' captures the volume of VOIP customers and minutes as shown in cells B23 and B42. These are inputted in cells Z37 and AB37 of the "Volume Input for TD" in the Fixed Model
- Sheet 'intercon' captures minutes pertaining to interconnection traffic. These are summarized in range C1:D17 and can be easily traced to the respective services in the "Volume Input for TD" sheet of the Fixed and Mobile models.
- Sheet 'sheet2' captures mobile on net traffic volumes and SMS traffic volumes in cells B115:B116, L91 respectively. Also captured is the actual Mobile Data traffic volume in cell L85.
- Sheet 'prod_feb 09' in cells E2820:E2821 captures the Business and Residential Access line volumes as shown in the 'Volume Input for TD' sheet of the fixed model.
- Sheet 'whle servces' captures the International Leased Circuit wholesale in cell T11 which corresponds to the value shown in cell AA24 of the 'Volume Input for TD' sheet of the fixed model.
- Sheet 'whle dom plc' captures the volumes for the Domestic Leased Circuits as shown in cell 'V51" of Appendix XI
- Sheet 'ADSl' captures the ADSL service as shown in cell N21 of Appendix XI
- Sheet 'Retail PLC' captures the volumes for the International Leased Circuit Retail service as shown in the 'Volume Input for TD' sheet.
- Sheet 'Retail DIA' captures the volume of the Direct Connect service and is shown in the 'Volume Input for TD' of the fixed model in cell AA6.

123. In Appendix X, the methodology to estimate the number of spares in the 'Material Reqmnt' sheet relies on the appropriateness of averaging over several categories of equipment. No documentation is provided justify the absolute number of equipment items needed as spares. In some cases the amount of spares exceed the installed base (cell Q53 and Q54), in other case there are no spares. Provide a detailed explanation and rationale for each of the estimates provided.

RESPONSE

LIME submits that the estimates provided in Appendix X are reasonable since they were obtained from its engineers and are deemed to reflect reality. If, however, the Authority has estimates based on reasonable engineering practices that may be considered better estimates of spares, and so directs, LIME would be willing to make the necessary adjustments to the model.

124. Explain how Cayman IRU costs as quoted in Appendix XII translate into costs shown in the 'International TX Costs' in the fixed network cost module.

RESPONSE

LIME attaches Appendix XII(A), which captures the budgeted amount for the # # setup. This budgeted amount is of a more recent vintage than the IRU obligations cited in Appendix XII. Even though the price considerations were guided by the IRU, LIME thought it best to use the lower of the two and lean towards a more conservative figure. In this respect LIME chose the # # Million for inclusion in the model as a reasonable estimate of the overall international transmission capacity cost. This is shown in cell E5 of Appendix XII(A).

125. Appendix XIII contains various utilization details for different parts of LIME's fixed and mobile network. Explain in detail how this information has been used in the FLLRIC model and if any adjustments have been made to reflect efficiency.

RESPONSE

In determining an appropriate utilization/efficiency factor to employ in the fixed model, LIME looked at the table cited in sheet 'NAT DATA' of Appendix XIII, which shows calculated efficiencies in column M for various parts of its national transmission network. The overall average utilization is # #%. However, in adjusting for efficiencies, LIME increased this figure to an internationally benchmarked value of 66%. This is shown in cell C21 of the 'Technical Assumptions' sheet in the fixed model.

Likewise for the Mobile model, LIME chose an utilization factor of 80% which is in line with the average of the median range shown for the cell sites utilizations depicted in sheet '60%-90%' of Appendix XIII. LIME believes this is in line with international benchmarks.

If, however, the Authority has an estimate that it considers to be closer to international benchmarks, then LIME is willing to reconsider this position once so directed.

126. Appendix XIV contains LIME's 2 year forecast over 2008 demand obtained from Outside Plant Engineering and Planning Department. The overall provisioning allowance for lines is calculated to be # #%. The provisioning allowance in the fixed model is # #%. Provide a detailed rational for the use of # #% considering that market conditions suggest # #%.

RESPONSE

The reason for a provisioning allowance is to cater for customers who, after applying and acquiring an access line at one particular location, might request that its services be terminated for one reason or another. Typically a customer may be relocating to another apartment; house or leaving the island all together, which is not unusual in Cayman, especially given its large expatriate population. Historically LIME has had to cater for these customers who are mainly property renters. Rather than completely disconnect/cease a line when a customer vacates a premise, the line would be placed in a special status (a type of suspense) which allows for it to be reactivated easily when the property is reoccupied. This provisioning was necessary because rental properties are seldom left unoccupied for very long in Cayman. The calculated # #% reflects this historic reality.

LIME is at present rolling out IP technology throughout the islands which includes converting and upgrading all of its remote switches to MSAN/MGs. This upgrade has placed technical limitations on the system to maintain previous levels of "suspense" lines. As a result, LIME's engineers have indicated that going forward the number of lines in "suspense" would be reduced significantly. Also, fixed-to-mobile substitution has significantly affected the demand for reconnections/reactivation of lines and, as a result, fewer customers are applying for new lines or seeking line transfers. Therefore, LIME has sought to reflect this reality in the fixed model by applying a provisioning allowance of # #% rather than the historic # #%.

127. The Transmission network document, Appendix XVII, shows the forward-looking NGN network diagram of LIME's core network infrastructure including the transmission rings.

    a. Provide the utilization assumptions for the network depicted.

    b. Identify how growth assumptions affect the design and equipment requirements.

    c. Document how voice traffic shifting to data applications, and fixed line subscribers shifting to wireless only, were considered in sizing the network as depicted.

RESPONSE

A. LIME has applied a utilization of 66% as discussed in the response to interrogatory 125 above.

B. LIME has included a transmission capacity allowance of 20% as shown in cell 'D8' in the 'Demand Assumptions' sheet. This capacity allowance is subsequently used in determining the network demand in the 'Demand Calculations' sheet.

   LIME has also included a 3% growth for lines which is also shown in the 'Demand Assumptions' sheet, cell 'D10' and subsequently used in dimensioning the access network in the 'Demand Calculations' sheet.

   In addition, LIME has employed another growth factor of 5% for other network equipment. This is captured in cell 'D9' of the 'Demand Assumptions' sheet and again subsequently employed in dimensioning in the 'Demand Calculations' sheet.

C. LIME has applied a very conservative growth figure of 3% for access lines and reduced its provisioning allowance to 5% in order to reflect, in part, the reality of customers shifting away from fixed lines to mobile services.

   LIME has included a VOIP service in the fixed model using existing demand volumes, to which a realistic growth factor of # #% was applied. This is captured in the 'Volume Input for TD' sheet, cell 'P37'. The growth factors captured in the 'Volume Input for TD'

sheet reflect the realities of the market in the Cayman Islands and do take into consideration the growth in IP-based communications.


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North West Point
West Bay
Salt Creek
Seven Mile Beach
Safe Haven
Harquail
Eastern Ave.
North Sound Rd.
Avcom - Airport
Lions Centre
Sports Complex
Avcom - Newlands
Northward
Lower Valley
Spotts
Bodden Town
Cayman Kai
Cayman Islands
North Side Exchange
Queen's Hwy.
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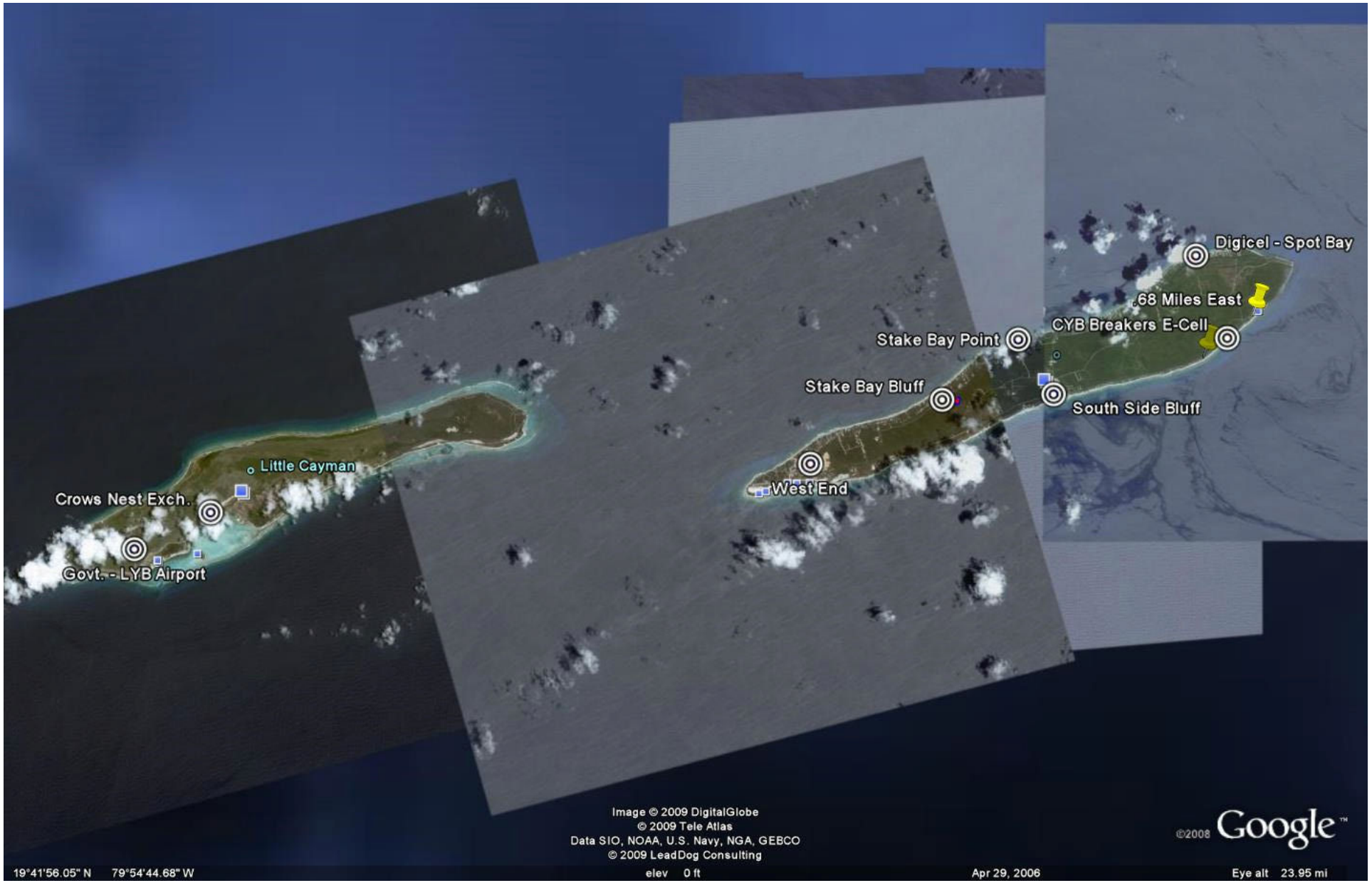
19°18'51.98" N 81°14'45.49" W
elev 24 ft
Eye alt 24.29 mi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Stake Bay Point
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Apr 29, 2006
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