Public Utilities Commission of Anguilla

Telecom Decision PUC 2012-102

The Valley, Anguilla – 12 September 2012

In the matter of a review of interconnection agreement prices between LIME (Anguilla) Limited (LIME) and the following operators: Caribbean Cable Communications (CCC); Weblinks Limited (Weblinks); and Wireless Ventures Anguilla Limited (WVA) (Digicel)

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I Background

Scope of Proceeding

1. The national regulatory framework provides for an 'integrated' public telecommunications service which requires that all public networks be interconnected. Section 5(1) of the **Telecommunications Interconnection and Access to Facilities Regulations R.R.A. c. T6-4 (IAF Regulations)** stipulates that every operator or service provider has a duty to interconnect with other service providers.

2. Cable & Wireless (Anguilla) Limited (C&W, Lime) is a licensed public telecommunications network operator and fixed-line and mobile service provider in Anguilla. C&W is the incumbent operator and received a new license on 14 December 2004.

3. Caribbean Cable Communications (CCC) is a licensed public telecommunications network operator and fixed-line service provider and received a license on 14 December 2004.

4. Weblinks Limited (Weblinks) is a licensed public telecommunications network operator and mobile service provider and received a license on 10 September 2004.

5. Wireless Ventures (Anguilla) Limited (Digicel) is a licensed public telecommunications network operator and mobile service provider with a license granted on 5 November 2004.

6. The current interconnection prices were approved by Commission Decision 2010-101, 12 March 2010, and as recommended in Decision 2008-101, 28 March 2008 and as amended by the 'Third Variation Agreement' and the revised Tariff schedule (Version 4.) of the Interconnection Agreements between the respective parties.

Current Interconnection Prices

7. The current interconnection prices as approved by Decisions 2008-101 and 2010-101 are as follows:

Table 1: Current Interconnection Prices Per Minute		
Service	**EC cents**	**US cents**
a. PSTN Term. Service	4.5	1.67
b. Mobile Term. Service	30.0	11.1
c. Mobile Term. Service - Transit Portion	1.8	0.67
d. Incoming International to PSTN Term. Service	4.5	1.67
e. Incoming International to Mobile Term. Service	30.0	11.1
f. Incoming International to Mobile Term. Service – Transit	1.8	0.67
g. Special Access Services –access to 999 & 911	3.0	1.11
h. PSTN Transit – PSTN Transit Service	1.8	0.67

The Proceeding

8. In **Telecom Decision PUC 2008-101,** paragraph 101, the Commission undertook to review interconnection rates on or before 1 July 2012. Paragraph 101 reads as follows:

> *'The Commission will commence a review of the prices for interconnection on or before 1 July, 2012 to determine whether the prices should be adjusted having regard to the operators' operating costs and traffic trends and the overall development of the market in terms of customer base and usage trends. ….'*

Public Notice and Responses

9. A Public Notice for this proceeding was published in the Gazette, Volume 38, No. 9, 15 April 2011, and reads, in part, as follows:

> *'Sections 3(d), 3(l), 7(1) (d), 17 (2) (c) and 20(3) of* ***the Act*** *and sections 14.1, and 14.5 of Lime's and Digicel's* ***license*** *provide a framework within which to review and consider revisions to the current interconnection rates.*
>
> *In particular, given the provisions in Section 7(1) (d) and 17 (2) (c) of* ***the Act*** *and/or Sections 14.1 and 14.5 of Lime's and Digicel's* ***license*** *and the current or proposed level of prices for Lime's AllTalk service and Digicel's unlimited local and flat rate Caribbean calling plans,….'*

10. In response to the public notice and the invitation to file comments, LIME, Weblinks and Digicel filed initial submissions with the Commission. Reply comments were filed by LIME, Digicel and Weblinks.

Decision 2012-101, 22 March 2012

11. Following a review and analysis of the initial comments to the public notice and reply comments, the Commission issued Decision 2012-101 in which the following interconnection prices were recommended (paragraph 172, page 40).

Table 2: Proposed Interconnection Rates Per Minute						
Service	**Current Price**		**Price Effective 1 September 2012**		**Price Effective 1 September 2014**	
	EC cents	US cents[1]	EC cents	US cents	EC cents	US cents
a. PSTN Term. Service	4.5	1.67	4.0	1.48	3.0	1.11
b. Mobile Term. Service	30.0	11.1	20.0	7.40	10.0	3.70
c. Mobile Term. Service - Transit Portion	1.8	0.67	1.0	0.37	0.5	0.19
d. Incoming International to PSTN Term. Service	4.5	1.67	4.0	1.48	3.0	1.11
e. Incoming International to Mobile Term. Service	30.0	11.1	20.0	7.40	10.0	3.70
f. Incoming International to Mobile Term. Service – Transit Portion	1.8	0.67	1.0	0.37	0.5	0.19
g. Special Access Services –access to 999 & 911	3.0	1.11	2.50	0.93	2.0	0.74
h. PSTN Transit – PSTN Transit Service	1.8	0.67	1.0	0.37	0.5	0.19

12. The following 'Directions on Procedure' were included in Decision 2012-101:

'174. Further comments on the matter of interconnection prices, this decision, including the recommended interconnection prices, and any other relevant matters may be filed by interested parties including C&W, Weblinks, WVA Ltd. and CCC on or before 30 April 2012. Reply comments are due on or before 30 May 2012.

13. In response to the decision, submissions were filed by Digicel, and LIME. Reply comments were filed by Digicel, LIME and Weblinks. The Commission extends their appreciation to those parties that participated in this proceeding. However, participating parties should note that negative comments on the character of a person or an institution generally do not enhance the advancement of a party's position on the key issues in an interconnection regulatory proceeding.

[1] Based on an exchange rate of EC$ 2.7 per US$ 1.00.

II Decision 2012-101 – Submissions and Replies

Digicel's Response to Decision 2012-101

Alternative Proposal

14. While Digicel opposed any changes in the interconnection rates and supported 'Option F' of the Public Notice (no change in rates), in response to Decision 2012-101 the company provided an alternative proposal regarding changes in the mobile termination rate (MTR) which was described as follows:

'22. As such, Digicel would submit, as an alternative to Option F, that the proposed MTR rate reductions should be 11.1% on or before September 2012 and 33% from present levels on or before September 2014. Again, Digicel believes that such reductions to the MTR are not appropriate; but they are certainly considerably less objectionable to the drastic MTR reductions as proposed at paragraph 172.[2]

Interpretation of a "Pure LRIC" Approach

15. Digicel comments, in part, as follows on the matter of the application of a 'pure LRIC' approach:

'30. Paragraph 73 of the Decision makes clear that the PUC accepts that Section 17 of the IAF Regulations is central to the issue of interconnection rates (a position advanced by both Digicel and LIME). At paragraph 75, the PUC essentially rules that cost orientation equates to a pure LRIC approach.

31. Digicel submits that this is a flawed approach and one that wholly undermines the Recommendation in a fundamental way. Digicel believes that the PUC's approach here at this critical juncture of the Decision confirms that the PUC has improperly interpreted these IAF Regulations to mean that the PUC can adopt a pure LRIC approach. This is not the case.'

16. Further comments by Digicel on the matter of a 'pure LRIC' approach read, in part, as follows:

'34. Digicel submits that the PUC's interpretation of the LRIC "floor price" is wholly inconsistent with this requirement of the IAF Regulations. The PUC's interpretation could only be consistent with those Regulations if it was the intent of parliament to set a floor price below those permissible under Section 14 (2) (c) of the Regulations. Common costs would have to be precluded under a "pure LRIC" approach yet the Regulations expressly says these costs "shall" be recovered so "pure LRIC" is at odds with 14 (2) (C). The mandatory language of Section 14 (2)(c) mandates the inclusion of common costs. As such, the Regulations prohibit a Pure LRIC approach; which by definition excludes such common costs.'

[2] Digicel comments on Telecom Decision PUC 2012-101 dated 30 April 2012 (as amended 16 May 2012), paragraph 22, Page 6.

Linkage between Retail and Wholesale Prices

17. Digicel identifies Section VI of their comments of 30 April 2012 as the 'Fundamental Flaw in linkage of Retail Rate Pricing and Interconnection Rates' and comments as follows at paragraph 39:
'39. Instead the PUC has become fixated on retail pricing; guided strongly down this path by Weblinks' exhortations. Frankly, retail pricing has nothing at all to do with interconnection pricing and the efforts of the PUC to impute effective interconnection pricing from retail pricing is wholly misconceived and completely at odds with accepted practice.'[3]

18. On the matter of the price levels for 'on-net' and 'off-net' calls, Digicel comments at paragraph 45, in part, as follows:
'45. While the PUC may say that it is not relying on retail rates as a measure of interconnection rates a number of statements are nonetheless made suggesting that this is possible. There are a number of reasons why there is not a direct relationship. Firstly, on and off net rates can differ and there are valid competitive reasons for this. <u>It cannot be stated that just because on net prices are offered at a certain rate that these must cover interconnection costs.</u> It is the total price of the package that must be considered and also the proportion of total traffic using the particular offering as a proportion of total network traffic that has to be considered among other factors. <u>It may be perfectly legitimate to price on net rates below cost (if that happens)</u> and off net rates above cost as a competitive measure. The alternative would be to outlaw these on and off net price differences. However, that would stifle price competition and encourage price mirroring.'[4] *(Emphasis added)*

Benchmarking

19. A set of benchmarks was submitted by Digicel and described as follows:
'50.We append a table of benchmarks for the region. As can be seen the average domestic mobile termination rate is 10 US cents and the average international mobile termination rate is 12 cents. There is therefore nothing amiss with mobile termination rates in Anguilla and no changes are needed.'[5]

20. In terms of the selection of benchmarks, Digicel comments, in part, as follows:
'52. The PUC has ignored the LRIC benchmarks where obvious comparisons can be made with ECTEL countries in terms of stages of economic development, teledensity, population sizes, currency and economies of scale and scope. Instead the PUC appears to think it is more appropriate to justify opting for an approach where the average customer base of the operator is 10 million subscribers, with a population of 60 million and where the market has been liberalised for over 20 years.[6]

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[3] Ibid, Digicel, page 10.
[4] Ibid, Digicel, paragraph 45, pages 10 & 11.
[5] Ibid, Digicel, pages 10 & 11. (Digicel's *list of reference domestic and international mobile termination rates in their response of 30 April 2012 (see erratum as amended in submission of 16 May 2012 – data in the Annex of Digicel's submission and paragraph 50 – DMTR average of 0.093 and IMTR average of 0.114).'*
[6] Ibid, Digicel page 12.

International versus Domestic Termination Rates

21. The matter of whether the termination rate for an international minute and a domestic minute should be symmetrical was addressed, in part, at paragraph 55 of Digicel's submission of 30 April 2012 as follows:
'55. Digicel is strongly of the view that this continued symmetry as between the rate for international termination as that fixed for domestic termination will cause great damage to the telecoms industry in Anguilla. Indeed, this failure to protect this key source of revenue for the Anguillan telecoms market will not only damage the local operators across the board, but will very likely lead to higher retail rates being imposed on consumers in Anguilla.'[7]

22. In concluding their comments on the international versus domestic termination rate, Digicel commented as follows:
'68. The PUC ought not to touch the international incoming rates for either fixed or mobile networks as part of this process. To do so would constitute a very serious mistake which will only inflict damage on the local industry and industry players and seriously adversely affect local consumer welfare.'[8]

LIME's Response to Decision 2012-101

Benchmarking

25. In their concluding comments on benchmarking, LIME submits the following recommendation:
'14. In other words, the Commission is yet to demonstrate the suitability of the selected benchmark. On the other hand, LIME submits that the ECTEL LRIC rates represent more appropriate benchmark rates for the Anguilla market. The "national environment" of the ECTEL countries is certainly far more similar to Anguilla than the European Union countries could ever be, and LIME recommends that, in the absence of a LRIC model of its own, the PUC look to the ECTEL LRIC rates for guidance.'[9]

International versus Domestic Termination Rates

27. In their submission of 30 April 2012, LIME refers to 'International Settlement Rates' as follows:
'International Settlement Rates
15. LIME notes that the PUC intends to apply the same call termination and transit rates to incoming international calls (i.e. calls originating overseas) as to domestically-originated calls, terminating on both the mobile and fixed networks. <u>The termination rate that is applied to incoming international calls in a domestic market typically provides a floor for international settlement rates</u>, and the reduction of those call termination rates will cause those settlement rates to fall. Unfortunately, any fall in settlement rates is a cost to the country because of the loss in foreign exchange inflows. Because there is no evidence that lower international settlement rates will stimulate increased traffic from the overseas

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[7] Ibid, Digicel page 12.
[8] Ibid, Digicel page 15.
[9] LIME's Response of 30 April 2012 to Decision 2012-101, paragraph 14, page 12.

countries to Anguilla, there are no offsetting elasticities.[10]*(Emphasis added)*

28. LIME comments further on the subject of international rates at paragraphs 17 and 18 as follows:
'17. LIME also notes that the call termination rates that currently apply to incoming international calls comply with the definition of "cost-oriented" in subsection 13(4) the IAF Regulations. Retaining the current rates for incoming international calls, even if call termination rates for domestically-originated calls are reduced, would also consistent with the Commission's obligations under subsection 4(1) of the IAF Regulations, in particular paragraphs (c) and (d).
18. In these circumstances, the PUC would be acting completely reasonably, rationally and lawfully if it were to order changes to the call termination rates for domesticallyoriginated calls (subject to appropriate cost or benchmarking studies, as discussed above) while not ordering changes to the call termination rates for internationally-originated calls.[11]

LIME's 2005 Cost Model

29. LIME comments on the use of the results of their 2005 Anguilla cost study as follows:
'Improper Justification for Proposed Termination Rates
20. The PUC has referenced the LIME 2005 "costing model" as a benchmark for the reasonableness of its proposed rates and the PUC's assertion of the unreasonableness of existing rates. This is odd, at best, because the PUC rejected LIME's proposed rates and had expressed dissatisfaction with the transparency of the methodology applied.

30. LIME comments further on the use of their 2005 cost model as follows:
'23. Having specifically rejected LIME's 2005 "cost model" on the basis that it does not comply with the IAF Regulations, it is inappropriate for the PUC to rely now on that "cost model" as support for its proposed rates.16'[12]

31. In concluding their comments, LIME submits as follows:
'24. While LIME would prefer call termination and transit rates that are informed by a valid costing study, LIME is prepared to consider rates that are informed by an appropriate benchmarking exercise. However, for the reasons set out above, neither the French rates nor the "costs" resulting from the 2005 "cost model" are appropriate benchmarks in these circumstances. LIME submits again that the Commission ought to refer to the currently-applicable ECTEL LRIC rates.'

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[10] Ibid, LIME, paragraph 15, pages 12 & 13.
[11] Ibid, LIME, paragraph3 17 and 18, pages 13 and 14.
[12] Ibid, LIME, paragraph 23, page 15 and Footnote #16 (It should also be noted that at no time did LIME represent its 2005 cost analysis as a "LRIC" model. Rather, LIME was clear that it made adjustments to its FAC model in order to approximate a LRIC result. LIME refers to the following paragraph on page 10 of its 2005 "Cost Submission":
As far as the LRI C floor is concerned, we derive a measure by excluding all network and business-wide common costs, as well as the access network costs, from the termination service FAC costing. We also increase the FAC model volumes by adding the forecasted interconnect volumes of other licensed operator. These adjustments produce a termination cost of ### EC$. We freely admit that a proper cost -volume analysis of service provision might result in a LRIC below this figure. However, this approach gives us a conservative proxy for the bottom end for our sought-after range. (emphasis added)

Reply Comments

Digicel's Response to LIME's Submission

32. Digicel comments at paragraph 7 on LIME's submission, in part, as follows:
'7. LIME's submissions in opposition to the rates proposed by the PUC address 3 broad areas:
(a)The application of the benchmark methodology;
(b)The need to exclude international incoming calls from being impacted by these new rates: and
(c)The appropriateness of relying on the 2005 LIME Submission
Digicel will address these matters individually below. However, it is important to note that Digicel finds itself in strong agreement with LIME on all of these matters.'[13]

33. With respect to the use benchmarks, Digicel comments as follows on LIME's submission:
'12.Digicel finds itself in broad support of the submissions found at paragraph 14 of the LIME submission that:
"…the ECTEL LRIC rates represent more appropriate benchmark rates for the Anguilla market. The "national environment" of the ECTEL countries is certainly far more similar to Anguilla than the European Union countries could ever be, and LIME recommends that, in the absence of a LRIC model of its own, the PUC look to the ECTEL LRIC rates for guidance…"'[14]

34. On the matter of incoming international traffic and the domestic termination rate, Digicel comments, in part, as follows at paragraph 15:
'15. Digicel supports the submission as advanced by LIME at paragraph 17 that the present incoming termination rates are "cost-orientated" and that differentiating as between international incoming and domestic termination is wholly consistent with the IAF Regulations.'[15]

35. Digicel referred to LIME's submission and in particular 'footnote 16' (see paragraph 29 above and footnote 14 below) and commented in paragraph 19 as follows:
'19. Digicel also notes the extremely important admission inserted by LIME at footnote 16 that it never represented or maintained that this 2005 costs analysis / cost model was a LRIC model. Given the context in which the PUC has, incongruously, sought to now rely on this 2005 submission, this information is extremely important.'[16]

LIME's Comments on Digicel's Response

36. LIME comments at paragraph 4 of their submission as follows:

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[13] Digicel's Response, 31 May 2012, to LIME's Submission of 30 April 2012, paragraph 12, page 6.
[14] Ibid, Digicel', paragraph 12, page 6.
[15] Ibid, Digicel, paragraph 15, page 7.
[16] Ibid, Digicel, paragraph 19, page 8.

*4. LIME notes Digicel's comment that "the instances where Digicel and LIME have agreed on regulatory matters throughout the Caribbean (let alone in Anguilla) are very few and far between", and must agree. There are in fact elements of Digicel's submission with which LIME disagrees. For example, there is no logical basis for the proposal to link mobile termination rate ("**MTR**") and fixed termination rate reductions on a percentage basis, as the two call termination services have different and separate cost bases. LIME also strongly refutes the suggestion that the MTR in the British Virgin Islands was in any way "a strategic move by LIME to limit Digicel's success in the BVI market", when the facts in that case demonstrate that the new MTR was agreed by the incumbent mobile operator (CCT) independent of Digicel's entry into that market.'*[17]

37. Notwithstanding the above-mentioned disagreement between LIME and Digicel regarding the linking of the reductions in the MTR with the FTR reductions, LIME indicates that both companies share 'similar themes of concerns' and comment at paragraph 5 as follows:

'5. However, having reviewed Digicel's response, it is apparent that both LIME and Digicel share similar themes of concerns regarding the Commission's Decision. Both companies agree that:

o the Commission has improperly applied the methodology of benchmarking;

o European benchmarks are not applicable to Anguilla;

o it is inappropriate to apply a "pure LRIC" methodology in Anguilla;

o the application of the same call termination rates to incoming international calls as to domestically-originated calls is harmful to domestic service providers and the Anguillan economy.'

38. On the matter of the relationship between domestic call termination rates and international settlement rates, LIME comments, in part, at paragraph 8 as follows:

'8. LIME reiterates the rationale for its position as contained in its response to the Commission's Decision:

> *15.. '….[T]he termination rate that is applied to incoming international calls in a domestic market typically provides a floor for international settlement rates, and the reduction of those call termination rates will cause those settlement rates to fall. Unfortunately, any fall in settlement rates is a cost to the country because of the loss in foreign exchange inflows. Because there is no evidence that lower international settlement rates will stimulate increased traffic from the overseas countries to Anguilla, there are no offsetting elasticities.*
>
> *16. This would be a loss to the Anguilla economy of hard currency on incoming international traffic terminating on the mobile and fixed networks. The overseas carriers who send calls to Anguilla would benefit from the lower rates and would not necessarily pass on these reduced cost to their customers, who all reside outside of Anguilla, andwho in any event are unlikely to increase their calling into Anguilla as a result of the decrease in settlement rates.'*[18]

Weblinks' Reply Comments

39. On the matter of benchmarking, Weblinks comments, in part, as follows:

[17] LIME's Comments dated 30 May 2012 on Digicel's Response, paragraph 4, pages 1 & 2.
[18] Ibid, LIME, paragraph 8, pages 3 & 4.

'5. Benchmarks do not, and cannot, of themselves provide this answer. As can be seen from the fast and furious disputations for and against various benchmarks in both the Digicel and LIME submissions and responses, one comes up against a huge problem before one even starts: which of the so-called benchmarks really provide appropriate and fair comparison with the Anguillian market, and which are not? Is a benchmark from the UK telecommunications regulator OFCOM suitable for application in Anguilla but one from metropolitan France not, and if so or if not, why or why not? Is a benchmark from the ECTEL territories suitable for application in Anguilla but not one from Jamaica, and who gets to decide which is applicable and which is not?[19]

40. Regarding the selection of suitable benchmarks, Weblinks comments as follows at paragraph 13:
'13. But there is no unanimity of benchmarks here. LIME presents the other ECTEL countries as being the perfect benchmarks for Anguilla, but Digicel immediately disagrees with the appropriateness of using the ECTEL countries as a benchmark for Anguilla while at the same time agreeing (without presenting any supporting evidence) that Anguilla should nevertheless not have terminating rates that are lower than those of the ECTEL countries: 'But we disagree with LIME's suggestion that the rates in ECTEL are best practice, although we can agree that rates should certainly not be lower than those in ECTEL countries.'[20]

41. In terms of a suitable methodology for selecting the appropriate benchmarks, Weblinks comments, in part, as follows:
'20. Again, Digicel is here implying that the correct assessment of network costs can be achieved entirely by benchmarking, so long as the benchmarking exercise follows a procedure that is acceptable to Digicel (the benchmarking follows the proper benchmarks?). This begs the question: Even if the PUC's use of benchmarking were to have met Digicel's criteria, what are Digicel's criteria (they do not appear to have been provided by Digicel anywhere in the Decision process), on what basis does anyone determine that Digicel's criteria would be the correct criteria and any different criteria employed by the PUC or proposed by LIME, Weblinks or CCC is flawed and improper, and who would make such determination?[21]

42. In the context of selecting suitable benchmarks, Weblinks makes reference to Jamaica and comments, in part, as follows:
'32. In para 50 of its 30th April 2012 Comments Digicel states: We append a table of benchmarks for the region. As can be seen the average domestic mobile termination rate is 10 US cents and the average international mobile termination rate is 12 cents. There is therefore nothing amiss with mobile termination rates in Anguilla and no changes are

needed. Digicel lists Jamaica in that table, clearly thereby accepting that Jamaica is useful as a benchmark for Anguilla, but makes no mention of Jamaica in the text of its submissions despite the fact that Jamaica was its first operation in the Caribbean and is its main Caribbean operation.
33. An important question is: now that Jamaica has reduced its domestic and international incoming mobile termination rates to around US$0.057 (EC$0.1539 per minute), within 35 days of Digicel listing it in its annex table, and with further reductions on the cards, does

[19] Weblinks' Reply Comments, 15 June 2012, paragraph 5, page 2.
[20] Ibid, Weblinks, paragraph 13, pages 3 & 4.
[21] Ibid, Weblinks, paragraph 20, page 5.

Digicel still consider it an appropriate benchmark for Anguilla? The characteristics of networks in Jamaica would not have changed, only the termination prices, so its standing as a benchmark should similarly not change.[22]

43. Weblinks makes further references to Jamaica which read, in part, as follows:
'38. Even with a model producing MTRs at the higher end of the costing spectrum, LIME calculated an MTR of only J$4.99 or 15.35 EC cents per minute.
39. The pricing model submitted by Claro, the most recent entrant to the Jamaican market with the lowest traffic at the time of the submission of the cost data, indicated an MTR no higher than J$5.117 or 15.74 EC cents per minute.
40. In para 4.7 of its Determination, the OUR states: Claro submitted a top-down LRIC model. Like the FAC model, the top-down LRIC model uses accounting costs as the basis of calculating the MTR. However, a top-down LRIC model contains some inefficiencies. In para 4.9 the OUR states: The results [of the Claro model] indicate that the MTR ranges from $1.548 to $5.117 when adjusted based on the various scale economies.
41. And in para 4.10, the OUR states: Claro's model separated cost associated with data services from those associated with voice services in estimating the MTR. The model however used an after-tax cost of capital of 15.1% which is lower than the 18.6% determined by the OUR. Taking this adjustment into account, the MTR ranges from a $1.910 to $6.311 …
42. Thus the highest MTR proposed by Claro was J$6.311 or 19.41 EC cents per minute (after ***being adjusted upward*** *by the OUR).'*[23]

44. On the matter of the timing of the recent OUR decisions and this current proceeding, Weblinks comments, in part, as follows:
'50. Since the OUR Determination was issued on June 4, 2012, after closure of submissions on the Commission's proceedings in Anguilla, it may be argued that its rulings should not be allowed by way of reference into the present Anguilla termination rate proceedings. Weblinks argues, however, that the LIME cost data for Jamaica (as well as that of Claro) was submitted to the OUR by the OUR's deadline of September 1st, 2010. Weblinks' point is that since 2010, well before even the inception of the Commission's proceeding, LIME had submitted that its network costs in Jamaica dictated an MTR of less than 16 EC cents per minute and this using a model that the OUR identifies as possibly including inefficiencies and which produces MTRs at the high end of the range.[24]

45. In terms of the use of benchmarks, Weblinks comments as follows at paragraph 62:
'62. … Despite Weblinks' objections, the Commission has stated that it accepts benchmarking as an input in helping to arrive at an assessment of network costs in the absence of direct local network cost data.'

63. But the Commission has made it clear from its earliest interconnection rate rulings, in 2005, that in its costing methodologies it had to take account not only of cost data and cost models and methodologies submitted by operators and stipulated by the IAF Regulations but also of other price indicators as well as other price-setting criteria stipulated by the Act and regulations.'[25]

[22] Ibid, Weblinks, paragraphs 32 & 33, pages 7 & 8.
[23] Ibid, Weblinks, paragraphs 38 to 41, pages 8 & 9.
[24] Ibid, Weblinks, paragraph 50, page 11.
[25] Ibid, Weblinks, paragraphs 62 & 63, page 13.

46. Weblinks refers to Commission decision 2005-101, paragraphs 98 to 107 inclusive, which read, in part, as follows:
'100. Therefore, all network 'users' should be provided access on a 'fair and reasonable basis' and not be 'unduly discriminated against'. In addition, operators are not to engage in 'anti-competitive pricing', and, in particular, are not to 'cross-subsidize unfairly' without approval of the Commission. The question of cross-subsidizes may arises if for a similar service or network function (mobile termination) the price is in the order of 30 EC cents for one group of customers and 55 EC cents for another group of customers.'[26]

47. On the matter of a relationship between retail and wholesale prices, Weblinks makes further reference to the link between retail and wholesale prices by citing a recent OUR decision as follows:

'74. *In para 2.4 of its Determination, the Jamaica OUR states that:*

The retail price of a cross network call is made up of two components - the origination charge and the termination charge. The origination charge is the portion of the revenue that goes to the operators on whose network the call initiates while, the termination charge is revenue to the operator on whose network the subscriber being called resides. Therefore, the termination rate sets a floor on possible retail price of a cross network call as the originating network would need to set the off-net retail rate at a minimum of the termination rate so as to not incur a loss on the call. As such, a termination rate that is set above its true cost results in a transfer of welfare from consumers to the terminating operator. However, it should be noted that in the absence of effective competition at the retail level, a reduction in the termination rate may not automatically be passed to consumers in the form of lower retail rates.

This statement by the OUR clearly undermines Digicel's contention to the effect that it does not accept the logic that the Act and regulations provide a link between retail rates and interconnection rates.[27]

48. On the matter of the trend in network costs and new technology, Weblinks comments at paragraphs 117 and 118 as follows:
'117. In para 26 of its Comments, Digicel states: The 2005 decision set a rate of EC 40 cents for mobile termination. This rate was set after the Commission had considered "…not only cost evidence but also the existing retail prices…". Digicel would submit that there is no way that the cost of mobile termination in 2012 is now half the cost of mobile termination in 2005. Furthermore, there is no way that the cost of mobile termination in 2014 will be ***one quarter*** *the cost as set on 2005. But this, incredibly, is what the PUC is recommending. There is absolutely no evidence anywhere that supports such logic.*
118. Digicel's contention here is simply not true. Digicel's network, installed in 2005, would if properly managed have recovered its investment well before now with a healthy rate of return. Mobile network technology is developing at a relatively brisk pace, and both Digicel and LIME have been engaging in upgrading their networks. The capital costs of mobile network equipment have fallen dramatically in the meantime, and it is possible to install much higher capacity and much more technologically advanced and richly featured network upgrades at a fraction of the cost of the original network installed in 2005.

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[26] Ibid, Weblinks, paragraph 64, pages 13-15.
[27] Ibid, Weblinks, paragraph 74, page 17.

49. The relationship between international and domestic interconnection prices was addressed at paragraph 140 of Weblinks' submission as follows:
'140. However, while agreeing that it is a complex matter with wider economic implications for Anguilla, Weblinks contends that it would not be proper for the PUC to set the International Incoming Termination Rate at a level that is higher than the corresponding domestic termination Rate.'[28]

50. Further comments by Weblinks on the matter of the matter of terminating international traffic on domestic networks and the relationship between retail and wholesale prices read, in part, as follows:
'157. The situation is even worse if the call is to Curacao (International Incoming Mobile Termination Rate of US$0.14 or EC$0.378 per minute), Bonaire (US$0.17 or EC$0.459 per minute) or Haiti (US$0.18 or EC$0.486 per minute). Even using those destinations included in the Digicel unlimited package that have the lowest International Incoming MTR (Dominica at US$0.09 or EC$0.243 per minute and BVI at US$0.10 or EC$0.27 per minute), it is clear that Digicel does not come anywhere remotely near to covering the International Incoming Mobile termination payment due in those countries or territories from the 5.425 EC cents per minute it is collecting retail from the call originator.
158. A similar situation applies with LIME's AllTalk packages which also cover a wide list of Caribbean countries. As Weblinks has detailed at length in previous submissions, the average retail per minute revenue generated by the calls does not remotely begin to come anywhere near covering the terminating rate due on these calls when they terminate in a different country.
159. Further, the reduction in revenue inflows to these countries includes the reduction of revenue inflows to Anguilla, since these packages include international traffic incoming to Anguilla from the other countries in the calling group lists.
160. Clearly then, both LIME and Digicel have already, for more than a year now and for several years in some cases, been engaging in actions that must necessarily meaningfully reduce the revenues due to these countries, including Anguilla!
161. Why then are LIME and Digicel so concerned about the reduction of revenue inflows to Anguilla and the resulting economic harm to the Anguilla economy, when they have already been engaged in precisely this practice for years?'[29]

Digicel's Response to Weblinks

51. In response to Weblinks' reply comments on the matter of benchmarking, Digicel comments, in part, as follows:

'10. Weblinks commence their substantive submission with an assault on the undesirability of using benchmarking as a means to set costs (except of course to subsequently double back on this position where some rare cherry picked benchmarks might suit their purposes; such as a recent OUR Determination in Jamaica). What Weblinks fail to do is address the huge problems involved in the only other approach which can be used for setting interconnection rates; cost modelling. Weblinks simply ignore this.'[30]

[28] Ibid, Weblinks, paragraph 141, page 30
[29] Ibid, Weblinks, paragraphs 157 to 161, page 33.
[30] Digicel's Response dated 2 July 2012 to Weblinks, paragraph 10, page 6.

52. A further comment by Digicel on benchmarking and Weblinks' reply comments reads, in part, as follows:

'19. Benchmarking is arrived at by the use of the most suitable proxies and, usually, the extraction of averages from such an appropriately framed study. It is not an exact science and there will always be a diversion of views as to what are the best proxies to draw from. Of course there is no "unanimity". However, what is absolutely telling in this process, is that both LIME and Digicel agree that the use of the ECTEL rates provides the best and most suitable proxy for Anguilla. Despite the charge laid at paragraph 13, there is unanimity as between LIME and Digicel that ECTEL rates are the best benchmarks in all of the circumstances. There is nothing whatsoever (at least nothing sensible) as set out by Weblinks that would displace this self-evident and entirely reasonable proposition. For the record, Digicel's submission that the rates for Anguilla ought not to be lower than the ECTEL rates is based on the relative economies of scale of the countries involved. This much ought to be immediately obvious to Weblinks. The true issue is why it is that the PUC would seek to apply rates so wildly out of sync with its ECTLE (ECTEL) neighbours (all of them).[31]

53. Digicel responds to Weblinks at paragraph 25 on the matter of selecting benchmarks as follows:

'25 At paragraph 31, Weblinks once again falls back on the recent Jamaican Determination and decries the fact that neither Digicel nor LIME put forward this recent Determination as a benchmark. Leaving aside the fact that this would involve all involved stepping into a time-machine (and that the other entities involved, unlike Weblinks, chose to abide by the timeliness advanced by the PUC); perhaps Weblinks may not be aware of it, but there are quite considerable difference as between Jamaica and Anguilla in terms of potentially key determining cost factors for interconnection costs. These include (by way of example):

- *Population*
- *Topology*
- *GDP*
- *Per Capita Statistics*[32]

54. In commenting on selecting benchmarks and Weblinks comments at paragraph 32 of their reply comments, Digicel makes the following submission:

'26. The Weblinks proposition that Jamaica provides a better benchmark for Anguilla than any of the ECTEL countries does not withstand even the most rudimentary of examinations. Digicel rejects the patently false submission by Weblinks at para 32 that the mere inclusion of Jamaica in a rates table for the region (which was expressly stated to be so) "clearly accepts" that Jamaica is a useful benchmark. Digicel provided what is said it was providing i.e. a table for the region which was current and accurate at the time of submission. Digicel

did not (as pithily advanced by Weblinks) state that Jamaica was a useful benchmark for Anguilla. Digicel has been abundantly clear throughout in terms of what it regards as the correct benchmarks for Anguilla and Weblinks' quite sneaky attempts to manipulate and deliberately misrepresent Digicel's submissions are most regrettable and quite unbecoming. Digicel has already answered the "important question" advanced by Weblinks at paragraph 33 of their submissions. Indeed, Jamaica is automatically ruled out as a benchmark in light of the legislative prohibition on the "Pure LRIC" approach which exists in Anguilla. Indeed

[31] Ibid, Digicel, paragraph 19, pages 9 & 10.
[32] Ibid, Digicel, paragraph 25, page 12.

the Jamaican regulator in describing "Pure LRIC" clarifies best why it cannot be applicable to Anguilla:

> "*Pure LRIC approach considers the increment to be the traffic created by a single service…if all services were priced based on a pure LRIC approach, network common costs and corporate overheads would not be recovered. As a consequence, these common costs would have to be allocated to services other than those being priced using a pure LRIC approach."*[33]

Anguillan law, in accordance with prudent policy, clearly makes allowance for recovery of common costs which are prohibited under a "Pure LRIC" approach.'[34]

55. On the subject of costing methodologies and the Weblinks' Reply comments, Digicel comments as follows at paragraph 33:
'33.There is no "battle of semantics between "LRAIC+" and 'Pure LRIC". Weblinks has either fundamentally misunderstood or blithely ignored the issue. The issue is one of law. The fact of the matter is that Pure LRIC is not a legal approach in Anguilla. The PUC must apply the law. Weblinks' references to Jamaica are completely and utterly irrelevant to the issue raised by Digicel in terms of the legality of the approach outlined by the PUC in Anguilla. What is relevant from Jamaica and what ought to be understood in this instance is that the OUR there has unequivocally accepted and stated on numerous occasions that Pure LRIC does not allow for common cost recovery. The law of Anguilla requires common cost recovery. As such, Pure LRIC is illegal in Anguilla. These are not semantics. These are facts. Pure LRIC is illegal in Anguilla and any effort by the PUC to adopt a pure LRIC approach would be in contravention of the law.[35]

56. The relationship between the international and the domestic termination rate and the comments by Weblinks at paragraph 141 of their Reply Comments drew the following response from Digicel at paragraph 37:
'37. Weblinks continue their ………. It must also be noted that the Jamaica Government is seeking to introduce a massive and unprecedented US 9 cent per minute charge on incoming international calls into Jamaica (made up of US 7 cents tax and US 2 cents Universal Service charge). This should be considered by the PUC when mulling over the sections from the Determination quoted by Weblinks at paragraph 141. The fact of the matter is that the OUR needed to drastically reduce the incoming rate in order to make room for the imposition of such a massive tax whilst still complying with FCC benchmarks. It has nothing to do with seeking to maintain symmetry between domestic and international rates as advanced by Weblinks.

LIME's Response to Weblinks

57. LIME refers to the Commission's legislative mandate regarding the determination of interconnection charges in paragraphs 6 to 9 in their response to Weblinks. in particular, LIME cites sections 17(2) and (4) as well 13(3) through (5) of the IAF Regulations and concludes their comments as follows:

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[33] Cost of Mobile Termination – Second Consultation, June 15, 2012, OUR Jamaica
[34] Op. cit., Digicel 2 July 2012, paragraph 26, pages 12 & 13.
[35] Ibid, Digicel, paragraph 33, page 15.

‘9. LIME is aware of the other provisions of the Act which set out the “functions” of the Commission, and that these other provisions have been invoked by the Commission in setting interconnection prices in the past. However, in LIME’s view, these other provisions need to be read in light of, and cannot derogate from, the mandate handed down by the Legislature to implement and charge cost-oriented rates for interconnection services in Anguilla.[36]

58. On the matter of Weblinks’ views on costs, LIME comments as follows:
’19. Weblinks appears to accept the proposition that the Act and Regulations require the Commission to set cost-oriented rates. Unfortunately, Weblinks offers little real information of its own about costs. Even while apparently deploring the lack of “accurate and reliable cost data” on the LIME and Digicel networks,(10) and while dismissing the LRIC cost models successfully developed in neighboring countries, Weblinks provides no cost information relating to its own networks. The superficial and flawed analysis Weblinks conducts on certain retail prices in the market in Anguilla does not qualify as a tool that the Commission could reasonably use for determining call termination costs.’[37]

59. In concluding their comments on the subject of benchmarks, LIME comments as follows:
’21. In the mean time, LIME proposes that the Commission and the operators in Anguilla use outputs of the most appropriate and relevant LRIC models developed in the region, namely the ECTEL LRIC models, as the basis for determining call termination rates.

[36] LIME’s Response to Weblinks, 29 June 2012, paragraph 9, page 4.
[37] Ibid, LIME, paragraph 19, page 8.

III Commission Analysis and Findings

Benchmarking

Background

60. The Commission notes the guidance provided in the InfoDev Toolkit regarding the two main purposes of benchmarking in assessing interconnection prices: *'Benchmarking has two main purposes in interconnection pricing. In situations where detailed cost models can be estimated, benchmarking can be used as a common sense check on the results of the modelling. Alternatively, benchmarking can be used directly to set interconnection prices.'*[38]

61. As noted above, one 'purpose' of benchmarking for interconnection purposes is in the case of detailed cost models, benchmarking can be used as a common sense check on the results of the cost modeling.

62. The second purpose given in the InfoDev Toolkit for the using benchmarking is that it may be used directly to set interconnection prices.

63. Based on their submissions in this proceeding, LIME and Digicel are in general agreement that employing benchmarks is a suitable method for determining an appropriate level for interconnection prices in Anguilla.

64. While Weblinks does not fully reject the use of benchmarks, the company expresses concerns with respect to the criteria to be employed for selecting specific benchmarks.

65. The Commission notes the reservations expressed by Weblinks in reply comments on the applicability of benchmarks. Weblinks makes the following submission: *'20. Again, Digicel is here implying that the correct assessment of network costs can be achieved entirely by benchmarking, so long as the benchmarking exercise follows a procedure that is acceptable to Digicel (the benchmarking follows the proper benchmarks?). This begs the question: Even if the PUC's use of benchmarking were to have met Digicel's criteria, what are Digicel's criteria (they do not appear to have been provided by Digicel anywhere in the Decision process), on what basis does anyone determine that Digicel's criteria would be the correct criteria and any different criteria employed by the PUC or proposed by LIME, Weblinks or CCC is flawed and improper, and who would make such determination?*[39]

66. In response to Weblinks submission, Digicel in their reply dated of 2 July 2012 submits the following in rebuttal:

[38] infoDev/ITU, ict regulation toolkit, Section 4.2.4, Benchmarking (http:www.ictregulationtoolkit.org) (Accessed 3 August 2012).
[39] Weblinks Reply Comments, 13 June 2012, page 5.

'7. …. *Weblinks decry the reliance on benchmarks as put forward by both LIME and Digicel; yet its submission is largely an ode to a recent highly controversial Determination issued by the Jamaican OUR; which controversial Determination is the subject of extensive Court proceedings in Jamaica and is untested either through the Courts or in the market. On the one hand, Weblinks urges the PUC to ignore benchmarks or comparators; but on the other hand Jamaica is to be lauded as providing unquestioned regulatory doctrine worthy of immediate implementation in Anguilla. This approach is fundamentally flawed (and illegal) in Anguilla.'*[40]

67. With respect to the use of benchmarks and in response to Weblinks' Reply Comments, LIME comments as follows:
'12. Any benchmarks that may be applied, however, should enable the Commission to come back as close as possible to the statutory requirement to set cost-oriented interconnection rates.
V. Appropriate Benchmarks
13. As LIME has stated before, benchmarks need to be carefully selected, if they are to be representative of the situation that applies in Anguilla. This includes a review of factors such as population of the jurisdiction, number of telecommunications users, GDP, geography (area and topography), etc. Clearly places like Singapore, the United States or large European countries are quite different from Anguilla, and call termination rates developed in those contexts are not likely to be representative of the unit costs experienced by operators in Anguilla.'[41](Emphasis added)

68. Digicel comments as follows on the use of 'regional benchmarks':
'Frankly, the PUC is very selectively picking and choosing here. The Commission uses benchmarks from larger countries in the Trinidad and Tobago case, and then it uses a single example from a small country in the BVI case. If all of those are valid benchmarks then so are all other MTRs in the region and the average of all MTRs would simply demonstrate that rates in Anguilla are already reasonable.'[42]

69. In response to Commission Decision 2012-101[43] which recommended certain interconnection rates for future periods, LIME in their response dated 30 April 2012 commented on the selection of suitable benchmarks as follows:
'12. Nor has the PUC demonstrated that it has applied any mitigating methodology as would be done in the proper application of a benchmark methodology. That is, the PUC has not demonstrated that it has in fact considered:
'…differences in GDP per capita, geographic area (sq. km), number of mobile telephones, population and network topography.' ….or '….the currency exchange rates employed to convert the rates in different countries to a common currency…'
13. This is all the more surprising given that the Commission has already made it plain in its Decision 2008-101 that:
A suitable benchmark should reflect as much as possible the 'efficient' level of cost to provide the related termination service in the national environment in which it is provided.

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[40] Digicel Reply to Weblinks, 2 July 2012, page 5.
[41] LIME Reply to Weblinks, 29 June 2012, page 6.
[42] Op. cit., Digicel, 30 April 2012, paragraph 49, page 12.
[43] Decision 2012-101, 22 March 2012, page 40, paragraph 172.

Incongruent networks due to significant differences in network topology or irrelevant comparisons due to wide variations in exchange rates should be avoided when selecting a suitable benchmark.
14. In other words, the Commission is yet to demonstrate the suitability of the selected benchmark. On the other hand, LIME submits that the ECTEL LRIC rates represent more appropriate benchmark rates for the Anguilla market. The "national environment" of the ECTEL countries is certainly far more similar to Anguilla than the European Union countries could ever be, and LIME recommends that, in the absence of a LRIC model of its own, the PUC look to the ECTEL LRIC rates for guidance.

70. LIME and Digicel propose the use of the ECTEL interconnection rates as suitable benchmarks for Anguilla. These benchmarks were presented by LIME[44] during this proceeding in their response of 6 June 2011 and are as follows:

Table 3: Domestic Termination Rates (EC$)			
Countries	**Fixed**	**Mobile**	**Transit**
Anguilla	0.0450	0.3000	0.0180
Dominica	0.0586	0.2580	0.0307
Grenada	0.0407	0.2510	0.0206
St. Kitts	0.0261	0.2817	0.0296
St. Lucia	0.0350	0.2240	0.0180
St. Vincent	0.0380	0.2410	0.0180
OECS Average	0.0397	0.2511	0.0234

71. The Commission accepts the general proposition that regional Caribbean benchmarks may be suitable for determining the level of interconnection prices in Anguilla and commends Digicel for providing an extensive list of reference domestic and international mobile termination rates in their response of 30 April 2012 (see erratum as amended in submission of 16 May 2012 – data in the Annex of Digicel's submission and paragraph 50 – DMTR average of 0.093 and IMTR average of 0.114).

72. In their submission of 30 April 2012, Digicel commented as follows on their list of regional benchmarks:
'50.We append <u>a table of benchmarks for the region</u>. As can be seen the average domestic mobile termination rate is 10 US cents (amended to 9.3) and the average international mobile termination rate is 12 cents (amended to 11.4). There is therefore nothing amiss with mobile termination rates in Anguilla and no changes are needed.'[45](Emphasis added)

73. However, in reply comments to the Weblinks submission, Digicel appears to revise the description of the set of rates in the Annex of their submission and comments as follows:
''26. The Weblinks proposition that Jamaica provides a better benchmark for Anguilla than any of the ECTEL countries does not withstand even the most rudimentary of examinations.

[44] LIME Response to the Public Notice, 6 June 2011, paragraph 15, page 9.
[45] Digicel Submission, 30 April, 2012, paragraph 50, page 11 & 12.

Digicel rejects the patently false submission by Weblinks at para 32 that the mere inclusion of Jamaica in a rates table for the region (which was expressly stated to be so) "clearly accepts" that Jamaica is a useful benchmark. Digicel provided what is said it was providing i.e. a table for the region which was current and accurate at the time of submission. Digicel did not (as pithily advanced by Weblinks) state that Jamaica was a useful benchmark for Anguilla. Digicel has been abundantly clear throughout in terms of what it regards as the correct benchmarks for Anguilla and Weblinks' quite sneaky attempts to manipulate and deliberately misrepresent Digicel's submissions are most regrettable and quite unbecoming.[46] *(emphasis added)*

74. Notwithstanding the ambiguity between the above-mentioned statements, Digicel has endorsed the ECTEL benchmarks and commented as follows:

'12. *Digicel finds itself in broad support of the submissions found at paragraph 14 of the LIME submission that:*

> *"…the ECTEL LRIC rates represent more appropriate benchmark rates for the Anguilla market. The "national environment" of the ECTEL countries is certainly far more similar to Anguilla than the European Union countries could ever be, and LIME recommends that, in the absence of a LRIC model of its own, the PUC look to the ECTEL LRIC rates for guidance…"*[47]

75. LIME's and Digicel's proposed regional benchmark is limited to one costing methodology applied in the five ECTEL countries. However, Digicel's 'table for the region', in their submission of 30 April 2012, includes a total of some twenty-one countries, including Anguilla and the five ECTEL countries. The Digicel list also includes BVI with an MTR of US$ 0.050, Cayman Islands with an MTR of US$ 0.108 and Jamaica with an MTR of US$ 0.090.

76. As noted by Digicel in their reply comments on Weblinks' submission, they provided *'a table for the region which was current and accurate at the time of submission'*. Subsequent to the submission by Digicel, the MTRs for the Caymans and Jamaica were revised. The revised rates are included in Table 4.

77. The Digicel list also includes the French West Indies (US$ 0.033) as well as a number of Central and South American countries.

Selection Criteria

78. Given that cost-related benchmarks may be derived from different costing methodologies, an overall range of cost-oriented benchmarks could be employed as a 'common sense check' on the results of a single cost model.

79. In order to construct a more balanced and representative set of Caribbean benchmarks relevant to both LIME and Digicel, a mitigating filter is applied to Digicel's list of 20 MTRs and the 11 benchmarks presented below in Table 4 are derived from Caribbean countries in which both LIME and Digicel are service providers:

[46] Op. cit., Digicel Reply to Weblinks, 29 June, paragraph 26, page 12.
[47] Op. cit., Digicel Reply to LIME, 31 May 2012, paragraph 12, page 6.

Table 4: Caribbean Benchmarks						
Country	Population (48)	Area (sq km) (64)	GDP per Capital (UDS$)[64]	Population Density (48/64)	Mobile phones[49]	Domestic mobile termination rate (US$)
1. Anguilla	16,760[50]	91	12,200	184	26,019[50]	0.111[51]
2. BVI	31,148	151	38,500	206	46,825	0.050[52]
3. Turks & Caicos	46,335	948	11,500	49	N/A	0.100[53]
4. St. Kitts & Nevis	50,726	261	15,800	194	80,000	0.104(51)
5. Cayman Islands	52,560	264	43,800	199	95,120	0.034(54)
6.Dominica	73,126	751	14,000	97	111,000	0.094(51)
7. St. Vincent	103,537	389	11,600	266	131,809	0.089(51)
8. Grenada	109,011	344	14,100	317	121,946	0.093(51)
9. St. Lucia	162,178	616	12,800	263	216,530	0.083(51)
10. Barbados	287,733	430	23,700	669	347,917	0.128[55]
11. Trinidad &Tobago	1,226,383	5,128	20,300	239	1,825,200	0.063[56]
12. Jamaica	2,889,187	10,991	9,100	263	2,974,715	0.06[57]
MTR Range (Lines 2 to 12)	**0.034 to 0.128**					
Average (Lines 2 to 12)						**0.082**

[48] Central Intelligence Agency – The World Fact book 2011; www.cia.gov< (Accessed 30 August 2012).
[49] ITU- Development; ICT Data & Statistics- key 2000- 2011 country data http://www.itu.int/ITU-D/ict/statistics/ (Accessed 30 August 2012)
[50] Public Utilities Commission 2011 Annual Report, Table 1, page 12.
[51] LIME submission 6 June 2011, page 9.
[52] TRC Market Analysis Consultation of 30 September 2011: http://www.trc.vg/attachments/015_Market%20Analysis_01_Interconnection%20Part%202.pdfhttp://www.trc.vg/attachments/015_Market%20Analysis_01_Interconnection%20Part%202.pdf (Accessed on 30 August 2012)
[53] Decision DN 2011-2 of 24 January 2011: http://www.telecommission.tc/content/root/files/20110124152043-TCI-MTR-Review-Decision-_2011-01-24_-final.pdf (Accessed on 30 August 2012)
[54] MTR of KYD$ 0.0284 as per ICTA Decision 2012-2 and based on 12 month average exchange rate of US$ 1.189 per KYD $1.00, according to http://www.xe.com/currencytables/?from=KYD&date=2011-08-01 (Accessed on 30 August 2012)
[55] MTR of BBD$ 0.255 as per C&W Barbados Consolidated RIO February 2010 and based on 12 month average exchange rate of US$ 0.5 per BBD $1.00, - http://www.xe.com/currencytables/?from=BBD&date=2011-08-01 (Accessed on 30 August 2012)
[56] MTR of TTD$ 0.4 as per TATT Second Arbitration Panel Decision 7 March 2008 and based on 12 month average exchange rate of US$0.157 per TTD $1.00, - http://www.xe.com/currencytables/?from=TTD&date=2011-08-01 (Accessed on 30 August 2012)
[57] MTR of JMD$5.00 and based on 12 month average exchange rate of US $0.012 per JMD$1.00, according to http://www.xe.com/currencytables/?from=JMD&date=2011-08-01 (Accessed on 30 August 2012)

80. Given the potential for a wide variance in the results from 'LRIC' costing i.e. top-down, bottom-up, stand-alone, there is a requirement to describe the basic features of the underlying method employed to produce a particular benchmark.

81. As previously noted the MTR's in the Caymans and Jamaica were recently revised and currently the Cayman MTR is set at CI$ 0.0284 (US$ 0.034)[58] and the Jamaica MTR is J$ 5.00 (US$ 0.06)[59]

82. In the case of the revised rate in the Caymans, the ICTA decision reads, in part, as follows:
'In paragraph 77 of Decision 2008-2 the Authority determined that it would select the technology to be used in the FLLRIC model based on which technology provides the lowest MTR. Correcting the asset life of "Civils/Ducts Cost" in each module results in a MTR of CI$0.0351 per minute for 2G technology and CI$0.0284 per minute for 3G technology. The technology with the lowest MTR is the 3G module. Accordingly, the Authority determines that 3G technology is to be used as a basis for calculating the cost of mobile termination and that a cost oriented MTR is CI$0.0284 per minute.'[60] (Emphasis added)

83. In the case of the revised rate in Jamaica, the OUR decision reads, in part, as follows:
*'**6. MTR DETERMINATION***
The maximum MTR from the cost model of Claro is $6.311 on a SAC basis and $2.497 using a top-down incremental cost approach, the FAC model of LIME gave an MTR of $4.99 which is likely overstated as indicated earlier. An MTR calculated for Digicel will be below the rates for both Claro and LIME.
6.1 The Act indicates that wholesale interconnection cost should be calculated on the basis of forward looking LRIC, whereby the relevant increment is the wholesale termination service and which includes only avoidable costs. This methodology is what is termed 'pure LRIC' and has become the standard in Europe. As shown in Figure 2, rates calculated using the pure LRIC approach will certainly be lower than those of FAC and top-down LRIC. It should also be noted that LIME and Claro had been charging each other an MTR of $4.00 for over three years.
6.2 Taking all the above analysis into consideration, the Office prefers to err on the side of caution and will implement an MTR above the estimated maximum top-down LRIC rate but below the estimate SAC rate. While this may represent a decrease on some of the rates being charged by some operators it is above the true cost that those operators actually face in providing the service.
*6.3 The Office therefore in accordance with the powers conferred on it **DETERMINES** that*

*(i) An interim MTR of **$5.00** per minute be implemented for all calls of both domestic and international origin with effect from the **15th day of July 2012.***[61] *(Emphasis added)*

[58] MTR of KYD$ 0.0284 as per ICTA Decision 2012-2 and based on 12 month average exchange rate of US$ 1.189 per KYD $1.00, according to http://www.xe.com/currencytables/?from=KYD&date=2011-08-01 (Accessed on 30 August 2012) .
[59] MTR of JMD$5.00 and based on 12 month average exchange rate of US $0.012 per JMD$1.00, according to http://www.xe.com/currencytables/?from=JMD&date=2011-08-01 (Accessed on 30 August 2012)
[60] ICTA Decision 2012-2, 17 May 2012, page 8, paragraph 28.
[61] Office of Utilities Regulation Mobile Termination Rate: Determination Notice Document No: TEL2012006_DET001 June 04, 2012, page 21.

84. The Caribbean benchmarks in Table 4 are derived from several methodologies such as LRIC bottom-up costing (Caymans); benchmarking (BVI and T&C); a combination of considering benchmarks and costing results (Trinidad & Tobago); and consideration of several costing results from different methodologies – top-down incremental, FAC (Fully allocated) model and a SAC (stand-alone costs) model (Jamaica).

85. The Commission notes that the Anguilla Interconnection Regulations provide for a range of rates to be considered 'cost-oriented' as defined in Section 13(4) (a) and (b). A range of relevant regional cost-related benchmarks would provide a suitable series of benchmarks for a reference framework to determine a suitable level for future interconnection rates and as a common sense check on any specific cost model.

86. Given Digicel's and LIME's support for employing 'regional benchmarks', the Commission accepts the notion that the most current Caribbean MTRs are the preferred standard since rates are being set for future as opposed to historic periods.

87. In the case of the benchmarks in Table 4, the range is from US$ 0.034 (Caymans) to 0.128 (Barbados) with the mid-point of the range at US$ 0.081 or about EC$ 0.219 and an average of US$ 0.082 or about EC$ 0.221 (see also Table 6, Line 2)

88. In terms of the population criteria, the selection of the four smallest jurisdictions in terms of population – V.I., Turks and Caicos, St. Kitts and Nevis and the Cayman Islands, produces a range of US$ 0.034 (Caymans) to 0.104 (St. Kitts and Nevis) with the mid-point of the range at US$ 0.069 or about EC$ 0.186 and an average of EC$ 0.194.

89. Similar to costing, the matter of selecting the most relevant criteria for identifying suitable benchmarks is not nearly a science. For example, the following comments by Digicel in a 2007-08 proceeding in Trinidad and Tobago on the absence of a definitive correlation between such factors as population size and geography and MTRs:

'To counter TSTT's challenge to the reasonableness of the European countries selected for its benchmarks, Digicel noted that <u>cost-based mobile termination rates are fairly consistent, regardless of the geographic factors, population size of the country or socio-economic differences</u>.'[62] (Emphasis added)

90. The Commission concurs with Digicel's position in the T&T proceeding as, for example, the evidence in this current proceeding shows a similarity in the average MTRs from a sample of EU countries and Caribbean countries (see Table 5 and Table 6, line 4) notwithstanding the significant differences in population and geographic size between the EU and Caribbean countries.

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[62] In The Matter Of An Arbitration Telecommunications Authority Of Trinidad And Tobago Between Digicel (Trinidad And Tobago) Limited (Complainant) And Telecommunications Services Of Trinidad And Tobago Limited (Respondent), Report And Decision Of The Arbitration Panel - Reference No: 4/7/06/04, 7 March 2008, page 44.

Table 5: Digicel's Caribbean Benchmarks (Updated)[63]				
Country	MTR (EUR cents)	MTR (USD cents)[64]	OECD (MTR)(1-12-2011)[65] (US cents)	Difference (US cents)
Hungary	10.06	13.76	6.34	7.42
Czech Republic	10.46	14.31	6.25	8.06
Slovenia	17.33	23.70	5.81	17.89
France	8.16	11.17	2.84	8.33
Cyprus	3.10	4.24	N. A.	-
Greece	11.17	15.27	7.03	8.24[66]
Spain	10.77	14.73	5.68	9.05
UK	8.91	12.19	4.29	7.90
Benchmark	**10.00**	**13.67**[67]	**5.46**[68]	**8.22**

91. While there may have been a general premise that there was an inverse correlation between population and population density and a company's MTR, the empirical evidence suggest otherwise.

92. For example, the average of the ECTEL results and the other Caribbean costing results of 6.2 US cents (Table 6, line 4) is within the range of the EU rates in Table 5.

93. Another example, in terms of Caribbean benchmarks, is a comparison between St. Kitts and Nevis and the Caymans which have similar populations and levels of density and both are reported to have derived their MTR's from a LRIC costing methodology. However, the MTR in St. Kitts at 10.4 US cents is some three times higher than that in the Caymans at 3.4 US cents.

94. In addition to the evidence regarding the apparent absence of a correlation between factors such as population size and cost-based MTR's, there is also evidence of a wide variance in 'cost-based' results depending on the type of LRIC model employed.

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63 Decision 2012-101, paragraph 134, page 32, (David Rogerson et aI. *'A benchmark for cost-based mobile termination in Trinidad & Tobago -A Report for Digicel',* Ovum Consulting, 24 August 2007, page 8.
64 Ibid, Figure 3.1 Ovum- A report for Digicel 24 August 2007, page 7.
65 OECD (2012), "Developments in Mobile Termination", *OECD Digital Economy Papers*, No. 193, OECD Publishing - http://dx.doi.org/10.1787/5k9f97dxnd9r-en , page 29.
66 Table 5 – erratum: in Table 3, Decision 2012-101, the difference in the rate for Greece should read 8.24 (15-27-7.03=8.24)
67 The rate in the MRT benchmark of cost-based mobile termination rates is 1 Euro = 1.367 USD as calculated from the data provided – Ovum Study dated 24 August 2007.
68 The exchange rate for the OECD mobile termination rate is 1 Euro = 1.4207 USD as shown on page 29.

95. Even specifying that a LRIC methodology is 'LRIC plus' may not produce similar results in the same setting if different assumptions such as the type of technology, demand function and/or whether historic cost (top-down) or latest technology costs (bottom-up) are employed in the model.

Cost-based Benchmarks

96. Selecting benchmarks based the individual ECTEL results plus the costing-based results in the Caymans and Jamaica produces a range with an average of 8.0 US cents as shown in Table 6, line 3. A further refinement of the selected benchmarks which reflects only those results using a different costing methodology, the ECTEL results are averaged, produces an average of 6.2 US cents as shown in Table 6, line 4.

Table 6 – Caribbean MTR Benchmarks – Ranges, Mid-Points & Averages

Benchmark Criteria	Range	Mid-point		Average	
	US cents	US Cents	EC cents	US Cents	EC cents
1. ECTEL Rates (Table 3)	8.3 – 10.4	9.4	25.4	9.3	25.1
2. Caribbean – LIME/Digicel regional benchmarks (Table 4- Lines 2 to 12)	3.4 – 12.8	8.1	21.9	8.2	22.1
3. Caribbean - Cost-based study results(1)	3.4 – 10.4	6.9	18.6	8.0	21.6
4. Average ECTEL + 2 other costing results (2)	3.4 – 9.3	6.4	17.3	6.2	16.7

(1) Line 3 - Costing results from each of the ECTEL countries plus the results from the Caymans and Jamaica.

(2) Line 4 - Average of ECTEL results plus the results from the Caymans and Jamaica.

97. Given a set of benchmarks, an issue that arises is whether the termination rates being reviewed should be in the range of a set of benchmarks or the average or in the upper

or lower quartile. In the proceeding resulting in Decision 2012-101, the matter was commented on by LIME as follows:

'8. LIME has provided evidence that both the fixed and mobile termination rates in Anguilla are within the range of equivalent cost-oriented rates applied in the Caribbean. .[69](Emphasis added)

98. LIME also commented as follows in their submission of 7 July 2011:
'3.*LIME agrees with Digicel's position on several issues under consideration in the Public Notice. In particular, LIME agrees with Digicel that there should be no change to the interconnection rates in Anguilla because the fixed and mobile termination rates in Anguilla are already reasonable and within the range of cost-oriented rates applied in the Caribbean region.'*[70] (Emphasis added)

99. LIME's comments that the current Anguilla termination rates are *'within the range of equivalent cost-oriented rates applied in the Caribbean region'* presumably is in reference to the ECTEL rates as these are the only rates submitted by LIME in this proceeding.

100. Digicel clarifies this assumption in their reply to Weblinks in which they submit as follows:
'19. ….*However, what is absolutely telling in this process, is that both LIME and Digicel agree that the use of the ECTEL rates provides the best and most suitable proxy for Anguilla.'*[71].

101. The Commission notes the distinction between the expression 'within the range' in LIME's comments and the expression as being in the 'same range' i.e. between the lowest and the highest MTR of a particular range. The current MTR for Anguilla at EC$ 0.30 is outside the range of the ECTEL rates (Table 3 – EC$ 0.224 to 0.2817).

102. The Anguilla MTR of EC$ 0.30 is some 20% higher than the ECTEL average of about EC$ 0.25 and some 37% higher than the lower end of the ECTEL range.

103. Employing a 'common sense' check on the results from a cost model suggests that one should employ a number of benchmarks other than those from a single cost model in order to perform the 'common sense check'.

104. A Similar point was noted in the previously-mentioned Trinidad and Tobago proceeding:
'Benchmarks can also be used as a "sanity check" to judge whether the results of a cost model are reasonable.[72]

105. Given that there are potential downward adjustments to the MTR in Barbados on completion and acceptance of the results from a costing methodology and also

[69] LIME Reply, 7 July 2011
[70] Ibid, LIME, paragraph 3, page 1.
[71] Op. cit., Digicel Response, 2 July 2012, paragraph 19, page 9.
[72] Op. cit., Trinidad & Tobago Arbitration proceeding, 7 March 2008, page 42.

adjustments to the Jamaica MTR and perhaps Trinidad and Tobago, the average of the cost-related Caribbean benchmarks in Table 4 and Table 6, lines 3 and 4 will trend downwards over the next several years.

Pricing, Costing and the Legislation

106. The definition of 'cost-oriented' prices for interconnection was addressed in Decision 2012-101 which reads, in part, as follows:

' 74. The Commission notes that the term 'cost-oriented' employed in section 13 of the IAF Regulations is defined as follows in section 13 (4):

'(4)For purposes of these Regulations, charges are "cost-oriented" if the operator's or service provider's charges for interconnection do not exceed the stand-alone cost of providing the service and are not lower than the long-run average incremental costs of providing the service, where –

(a) "stand-alone cost" means the cost of providing a service independently of providing any other service or services; and

(b) "long-run average incremental costs" means <u>the costs incurred by providing a service in addition to other service or services already provided</u>.' (Emphasis added)

'75. The Commission notes that the 'floor' for cost-oriented rates is defined as the 'long run average incremental cost'.

76. The use of a LRIC 'plus'(+) costing methodology would therefore not produce a result that represents the cost 'floor' as described in section 13(4) (b).'

107. The Commission notes the following comments by Digicel in reference to the above-mentioned paragraph 75 of Decision 2012-101:

'30. Paragraph 73 of the Decision makes clear that the PUC accepts that Section 17 of the IAF Regulations is central to the issue of interconnection rates (a position advanced by both Digicel and LIME). At paragraph 75, <u>the PUC essentially rules that cost orientation equates to a pure LRIC approach</u>.' (Emphasis added)

108. Digicel may have either miss-read and/or misinterpreted paragraph 75 of Decision 2012-101, as the Commission does not declare a 'rule' with respect to cost-orientation but only notes that the 'floor' for cost-oriented' interconnection rates is described in Section 13(4) as the 'long run average incremental costs' which is defined as meaning the *'costs incurred by providing a service <u>in addition to other service or services already provided'</u>*. The parameters or 'rules' for defining 'cost-oriented rates consists of both parts (a) and (b) of Section 13.(Emphasis added)

109. In reply comments to Decision 2012-101, Digicel and LIME raised the matter of section 14 of the IAF Regulations. Digicel comments as follows on the definition of 'cost-oriented':

'34.Digicel submits that the PUC's interpretation of the LRIC "floor price" is wholly inconsistent with this requirement of the IAF Regulations. The PUC's interpretation could only be consistent with those Regulations if it was the intent of parliament to set a floor price

below those permissible under Section 14 (2) (c) of the Regulations. Common costs would have to be precluded under a "pure LRIC" approach yet the Regulations expressly says these costs "shall" be recovered so "pure LRIC" is at odds with 14 (2) (C). The mandatory language of Section 14 (2) (c) mandates the inclusion of common costs. As such, the Regulations prohibit a Pure LRIC approach; which by definition excludes such common costs.

35. As such, Digicel believes that the fundamental premise upon which the Recommendation is based (namely the adoption of a pure LRIC approach) is unlawful and improper. As such, the Recommendation cannot lawfully be enacted or implemented in its current format.[73]

110. Presumably, Digicel intended to refer to Section 14(2)(d) and not 14(2)(c) as noted in their submission, as s.14(2)(d) makes reference to *'a proportionate contribution toward … fixed and common costs;'*.

111. The provisions in Section 13 (Interconnection charges) and those in Section 14 (Interconnection Rate Methodology) are distinguished as Section 13 (Charges) relates to cost recovery or pricing whereas the Section 14 relates to the process of costing or the costing methodology. The Commission has not, as yet, established a costing methodology pursuant to Section 14. However, in terms of interconnection charges, such prices are to be 'cost-oriented' as defined in Section 13(4)(a) and (b).

112. As noted in Section 14(3) of the IAF Regulations, when the Commission does establish a costing methodology, an appropriate procedure pursuant to Section 10 of the PUC Act will be conducted. Such a procedure would address the matter of harmonizing the definitions in Section 13 and 14.

113. The Commission also notes the provision in section 13(5) of the IAF Regulations which reads as follows:

'(5) No dominant operator or service provider shall charge, for any combination of interconnection services, a price that exceeds the stand-alone costs of providing the combination of interconnection services or that falls below the sum of the individual interconnection services' long-run average incremental costs.'

114. The Commission notes LIME's comments in their reply to Weblinks' submission on the matter of the Legislative Framework which read, in part, as follows:

'III. Legislative Mandate

*6. It is worth at this point to review the actual mandate regarding determining interconnection charges, as set out in the Telecommunications Act (the "**Act**") and the Interconnection and Access to Facilities Regulations* (the "**Regulations**"). *The key provisions are set out in section 17 of the Act and regulation 13 of the Regulations.'*[74]

115. LIME makes further reference to Section 13 of the IAF Regulations and provides a quote of that section in paragraph 8 of their submission. In concluding comments on 'cost-oriented rates', LIME makes the following submission:

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[73] Digicel Submission 30 April 2012, page 9.

[74] LIME Submission 29 June 2012, pages 2 & 3.

'12. Any benchmarks that may be applied, however, should enable the Commission to come back as close as possible to the statutory requirement to set cost-oriented interconnection rates.'[75]

Retail and Wholesale Prices

116. With respect to the matter of the level of wholesale and retail prices, the Commission notes the following from the InfoDev/ITU regulation toolkit:
'2.3.3 **Vertical Price Squeeze**
A firm which is vertically integrated and controls an essential input to the retail service implements a price (Figure 2.3) squeeze if:
· *The price the firm demands makes it impossible for an equally-efficient retail-stage competitor to operate profitably (or even survive) given the level of retail prices, and*
· *The firm does not charge its own downstream operation this high price.' ….*
… A price squeeze has a similar effect to a ***refusal to supply*** *an essential facility. In the extreme, the firm might demand a price for the essential input that is higher than the full retail price of the service.'* [76]

117. The Commission notes Digicel's comments on the matter of investigating a potential 'price squeeze' which read, in part, as follows:
'42. What appears to be happening here is that the PUC feels that some form of a price squeeze may be happening which is unfair to Weblinks. The PUC is not addressing the matter through the normal channels through (by way of example) conducting an investigation pursuant to Section 3(l) of the Telecommunications Act, but is rather seeking to address this by implementing drastically lower termination rates.[77]

118. As Digicel is aware, such an investigation was conducted in response to a complaint filed by Digicel dated 21 November 2008 which resulted in PUC Decisions 2009-101 and 102 (see also Decision 2012-101, paragraphs 92 to 96 for an overview of the related proceeding).

119. The Commission notes Digicel's comments on page 10:
'40. Digicel does not accept the logic as set out on paragraphs 79-81, that the Act and the Regulations provide a link as between retail rates and interconnection rates. Section 17(2) and Section 6(1) and 6(2) of the Regulations speak only as to interconnection; not to retail rates at all. This attempt to collapse retail pricing back into legal provisions which deal solely with interconnection is unreasonable and/or irrational. Again, the Weblinks influence looms large here, but it is misconceived.'[78]

120. In the current procedure leading to the recommendation for revised interconnection rates, paragraphs 79 to 81 of Decision 2012-101 read as follows:

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[75] Ibid, LIME, page 6.
[76] InfoDev/ITU – ictregulationtollkit.org, Module 2, Section 2.2.3.
[77] Digicel's Comments, 30 April 2012, paragraph 42, page 10.
[78] Ibid, Digicel, paragraph 40, page 10.

'79. In the public notice for this proceeding reference is made to section 17(2) (c) of the Act which reads as follows:
'(c) provide the elements of interconnection, to other operators and service providers, in a manner that is at least equal in both quality and rates to that provided by the operator or service provider to its own business units or to any body corporate with which it is affiliated or to any other party to which the operator or service provider provides interconnection and without regard to the types of users to be served, or the types of services to be provided, by such other operator or service provider;' (emphasis added)
80. Section 6 (1) and (2) of the IAF Regulations read as follows:
'Non-discrimination obligation
6.(1)Every operator and service provider must offer to provide and provide interconnection, and the elements thereof, to other operators and service providers on a non-discriminatory basis, including with respect to charges and quality of service.
(2)At a minimum, the obligation set forth in subsection (1) requires that interconnection and the elements thereof be provided in a manner that is at least equal in both quality and rates to that provided by the operator or service provider to its own business units or to any affiliate or to any other party to which interconnection is offered or provided.'
81. Based on s. 17(2) (c) of the Act and s. 6(2) of the IAF Regulations, in the provision of interconnection, a service provider must do so in a 'non-discriminatory' manner and provide interconnection 'at least equal in rates' to that provided by the service provider to their own business units.'

121. Regarding the matter of a vertical price squeeze, the Commission commented as follows at paragraph 83 of Decision 2012-101:
'83. These provisions in the Act and the IAF Regulations are intended to avoid anti-competitive practices such as a vertical price squeeze.[79]

122. In concluding comments on the relationship between wholesale and retail prices in Decision 2012-101 the Commission commented as follows:
"114 In terms of the two-sided nature of call termination markets, the EU Commission commented as follows in their recommendation on fixed and mobile termination rates:
'(15) ... Recognising the two-sided nature of call termination markets with costs being driven by two sides, not all related costs need to be recovered via the regulated wholesale termination charge. However, for the purposes of this Recommendation, all of the avoidable costs of providing the wholesale call termination service can be recovered via the wholesale charge, i.e. all of those costs which increase in response to an increase in wholesale termination traffic.'[80]
115. A recent report from the OECD commented as follows on the relationship between retail calling and the termination rate:
'There also appears to be a relationship between the number of minutes called on mobile networks and the termination rate. The United States has by far the lowest mobile wireless termination rates in the OECD area and much greater average use of mobile telephony.'[81]*"*

[79] infoDev-ITU, ITU-ICT Regulatory Toolkit, section 2.3.3.
[80] The Commission of The European Communities, '*Recommendation on the Regulatory Treatment of Fixed and Mobile Termination Rates in the EU'* (Official Journal of the European Union -2009/396/EC), 7 May 2009, paragraph 15.
[81] OECD (2012), 'Developments in Mobile Termination', *OECD Digital Economy Papers*, No. 193, OECD, page 4.

123. Notwithstanding the provisions in the Act, Section 17(2)(c) , and the IAF Regulations, Section 6(1) and (2), Digicel submits that '...retail pricing has nothing at all to do with interconnection pricing'. Such a view is one reason for the Commission's concerns regarding the absence of a rational relationship between the retail price for some mobile services and the underlying wholesale cost/price for the same network elements.

124. The issue of on-net versus off-net pricing is one manifestation of the underlying issue and a number of Caribbean jurisdictions[82] have addressed the matter in the past.

125. With the implementation of the interconnection prices as a result of this decision, the Commission will continue to monitor the relationship between retail, wholesale, on-net and off-net prices and further consider Digicel's comments in paragraph 42 of their submission of 30 April 2012 that 'normal procedure' is to conduct a separate investigation to examine the price-squeeze issue.

International Termination Rates

126. The matter of whether international termination prices should be the same as domestic termination prices was raised by both Digicel and LIME. Both parties proposed that if the domestic termination prices are reduced that the international termination price should be maintained at the current level.

127. The Commission notes that the following five network elements are identified in Section 16 of the IAF Regulations:

1) access lines;
2) domestic switching;
3) domestic transmission;
4) international switching; and
5) international transmission;

.

128. In term of the arrangements for conveying incoming international calls to a mobile network, the Commission notes that the at least four of the above network elements would be consumed in the termination of an incoming call to a mobile customer – international switching and transmission as well as domestic switching and transmission as illustrated in the following Figure.

[82] See ICTA (Caymans) Decision 2004-2, 7 April 2004; and Decision no. 04-MC-02 of the *Conseil de la Concurrence* (French Competition Council) (Guadeloupe & Martinique) of 9 December 2004.

<table>
<tr><th colspan="5">Figure 1: Network Elements/Functions – Settlement & Wholesale-Domestic Mobile Termination Rate</th></tr>
<tr><th colspan="5"><u>International Accounting/Settlement Rate (i.e. US$ 0.15)</u></th></tr>
<tr><td>Intern'l Transm.</td><td>Internt'l Switching</td><td>Point of Connection</td><td>Domestic Switching</td><td>Domestic Transmission</td></tr>
<tr><td colspan="2">International Component</td><td></td><td colspan="2">Domestic MTR</td></tr>
<tr><td colspan="2">3rd Party/affiliated company/ business unit</td><td></td><td colspan="2">PLMN</td></tr>
<tr><td colspan="2">Service Taker</td><td></td><td colspan="2">Service Supplier</td></tr>
</table>

129. Based on the consumption and cost of the network elements, the difference between the international settlement rate and the domestic mobile termination rate should reflect the cost of the international transmission and international switching. A change in the MTR and/or FTR should not automatically result in a decrease in the current settlement rate pursuant to the current Anguilla interconnection agreements.

130. The following is a description of the 'Incoming International Call Termination to PLMN Service' as presented in 'Service Descriptions – Schedule 2' of the Interconnection Agreement:
'3.1.2 The Incoming International Call Termination to PLMN Service will provide conveyance of Calls which (i) originate on the System of a Third Party International Telecom Provider and (ii) are conveyed via the Service Taker's System, from the Point of Connection defined by the Joining Service to the applicable Service Supplier PLMN Subscriber Connections. Calls must be addressed to valid number ranges associated with the Service Supplier (Taker) PLMN Subscriber Connections.'

131. A further description of the incoming international to mobile termination service being provided is found in Section 3.1.6 of the Service Description of the interconnection agreement and reads as follows:
'3.1.6 All Calls pursuant to this Service Description must be presented by the Service Taker to the Point of Connection as conventional circuit switched voice traffic. Calls conveyed pursuant to this Service Description are for ultimate termination on Service Supplier's PLMN Subscriber Connections within Anguilla only.'

132. The following description of the settlement rate was provided by LIME in a 2010 proceeding:
'153. The following descriptions were provided by Lime in their response dated 14 September 2010 (response to Interrogatory PUC24Aug10-02):

> *'(a) the <u>"Settlement Rate</u> " is the rate charged by third party international operators to LIME for the termination of LIME's international calls to the network of third party carriers. This rate covers <u>the cost of international transmission, international switching, domestic switching and local access on the third party international operator's own network</u> and that of a third party overseas carrier.*[83]

[83] PUC Decision 2011-101, paragraph 153, pages 29 & 30.

133. Given these descriptions, the service being provided appears to be identical to the domestic mobile termination service as the 'service supplier' terminates the call on their domestic network. The 'service taker' conveys the call from an international provider to the point of interconnection with the domestic service supplier. Any pricing arrangements i.e. the accounting and settlement rates are between the service taker and the international provider.

134. The Commission notes the following reply comments by LIME:

'8. LIME reiterates the rationale for its position as contained in its response to the Commission's Decision:

> *15.. '….[T]he termination rate that is applied to incoming international calls in a domestic market typically provides a floor for international settlement rates, and the reduction of those call termination rates will cause those settlement rates to fall.*[84]

135. While the domestic termination rate may typically provide the floor, there is no requirement in the currently approved interconnection agreement that a reduction in the domestic termination rate must be 'conveyed' to the international carrier by way of change in the accounting and settlement rate. In fact, given the need to cover the international transmission and switching costs, there is a sound rational for having the accounting/settlement rate higher than the domestic termination rate and therefore no need to reduce such rates when the domestic termination rate is reduced.

136. The Commission notes that during the 2007 interconnect review proceeding the matter of the difference between the international and the domestic termination rates was raised and, in response to a submission from LIME with support from Digicel, Commission equalized the two rates..

137. The Commission commented as follows in response to these submissions:

'39. C&W commented as follows in their submission of 13 July:

> *"12. The current set of interconnection prices includes two separate prices for the same service (termination of calls on a mobile network in Anguilla), depending on whether the call originated within or outside of Anguilla. This differential is necessary because the mobile termination rate ("**MTR**") for domestically originated calls is, while not unreasonable, nevertheless so high that a domestic licensed operator would not receive enough money from the international settlements from foreign operators to cover the cost of conveying that call into Anguilla and the cost of the domestic MTR. However, it is not entirely rational to have two different prices for the same service based on factors that are irrelevant to the cost of pricing that service, and the Commission should reduce the domestic MTR to the level of the incoming international MTR (namely $0.369 per minute). This would result in one consistent price for the termination of calls on mobile networks in Anguilla."….*
>
> *…. 41. Digicel also endorses the notion that the domestic and international mobile termination rate should be the same, however, they propose that the international rate be increased from EC$ 0.369 to EC$ 0.40.*
>
> *42. The Commission recommends that the international and domestic mobile termination*

[84] LIMe Response, 30 May 2012, paragraph 8, page 3.

rate be set at the same level (see Tables 1 and 2, paragraphs 67 and 68).'[85] (Emphasis added)

138. The Commission notes Digicel's comments regarding the difference between certain domestic mobile and international mobile termination prices which read, in part, as follows:

'We append a table of benchmarks for the region. As can be seen the average domestic mobile termination rate is 9.3 US cents and the average international mobile termination rate is 11.4 cents.'[86]

139. In terms of the international settlement rate, Digicel makes the following comment, at paragraph 28 in their response to Weblinks:

'28. ... And yet, in all of this, Weblinks never once grapples with the fact that the FCC benchmark rate for Anguilla is 15 US cents.'[87]

140. In terms of the level of domestic and international termination services and Weblink's comments at paragraph 143, Digicel replies as follows:

'39. The setting of different prices for domestic and international termination services is widespread in the Caribbean region and beyond. For instance, the regulator in Trinidad and Tobago recently approved a significant increase in international termination rates from 6.4 US cents to circa 12 cents for incoming mobile termination. The Government in Antigua and Barbuda has recently set the International Incoming Rate for Mobile at a floor of circa. US 15 Cents with US 5 cents for fixed whilst simultaneously reducing domestic termination rates. Barbados has always had a significant difference as between domestic and international termination rates. The submissions made by Weblinks at paragraph 143 are complete and utter nonsense and fly in the face of regulatory practice worldwide. Once again, the position is completely self-serving.[88]

141. The Commission notes that in the Annex to Digicel's submission of 30 April 2012 of the twenty-two countries listed only seven have different rates for International and domestic termination rates. In the case of Barbados the difference is 1(One) US cent (DMTR=13; IMTR=14).

142. Digicel comments on the FCC settlement rate as follows:

'41. ... The FCC has set a rate of 15 US cents for Anguilla; yet Weblinks believes that both Digicel and LIME ought to have their ability to earn this rate completely destroyed by the PUC. This will lead to significant upward pressure on domestic retail rates as well as seriously reduce the incentive for further investment. There is 15 US cents available per minute payable by international operators which constitutes money coming from overseas into Anguilla; and yet Weblinks believes that all would be best served by only receiving a small fraction of that.[89]

[85] Commission Decision 2007-102, 13 December 2007, paragraph s 39, 41 & 42, page 9.
[86] Ibid, Digicel, paragraph 50, page 12.
[87] Digicel's Response dated 2 July 2012 to Weblinks, paragraph 28, page 13.
[88] Ibid, Digicel, paragraph 39, page 17.
[89] Ibid, Dgicel, paragraph 41, page 18.

143. The Commission notes Digicel's reference to the FCC settlement rate of US$ 0.15 and also notes that the FCC rate has been in place for a number of years, well before the initial MTR of US $0.148 (EC$ 0.40) was established in Anguilla. However, notwithstanding several reductions in the Anguilla MTR (from EC$ 0.40 to 0,35 to 0.30) the FCC settlement rate of US$0.15 has remained unchanged.

144. In addition, section 20(3) of the Telecom Act and section 6(1) of the IAF Regulations requires that interconnection be provided on a non-discriminatory basis.

Mobile Termination Rate

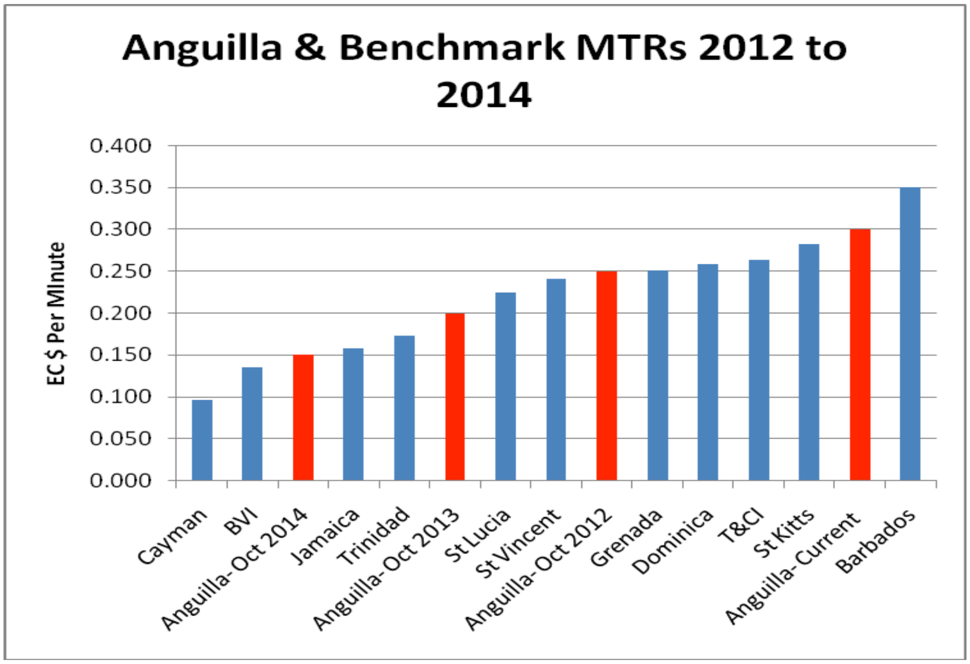
145. In modifying the Commission's recommended interconnection rates proposed in Decision 2012-101, the comments and replies of all parties were given due consideration. In setting the glide-path for the period 2012 to 2014, the Commission notes the counter-proposal put forward by Digicel which reads, in part, as follows:
'22. As such, Digicel would submit, as an alternative to Option F, that the proposed MTR rate reductions should be 11.1% on or before September 2012 and 33% from present levels on or before September 2014.'[90]

146. In consideration of the comments from the respective service providers on the employment of suitable regional benchmarks and given the selection of a set of regional benchmarks presented in Tables 4 and 6, the Commission finds the current MTR level of EC 30 cents is neither fair nor reasonable.

147. Having regard to the above-mentioned benchmarks and in order to maintain a consistent glide-path relevant to the past, the current and the proposed MTRs, the Commission finds that a reasonable level for the domestic MTR is EC$ 0.25 effective 1 October 2012, EC$ 0.20 effective 1 October 2013, and EC$ 0.15 effective 1 October 2014 (see paragraph 160, Table 7).

148. The following bar-chart[91] provides a comparison of the Anguilla MTR in 2012, 2013 and 2014 with those in the selecterd benchmark jurisdictions:

[90] Ibid, Digicel, paragraph 22, page 6.
[91] Table 4,page 21- PUC Decision 2012-102 (Conversion rate US1.00=EC$2.70)



149. The Commission considers the recommended MTR rates to be fair and reasonable having regard to the above analysis and findings. Section 20(3) of the Telecom Act provides a reference point for such decisions and reads as follows:

'(3) A service provider shall <u>provide rates that are fair and reasonable</u> and <u>shall not discriminate unduly among similarly situated persons</u>, including the service provider and any body corporate with which it is affiliated.'(Emphasis added)

Fixed Termination Rate

150. In Decision 2012-101, the Commission noted the following comments submitted by Digicel regarding the MTR/FTR ratio;

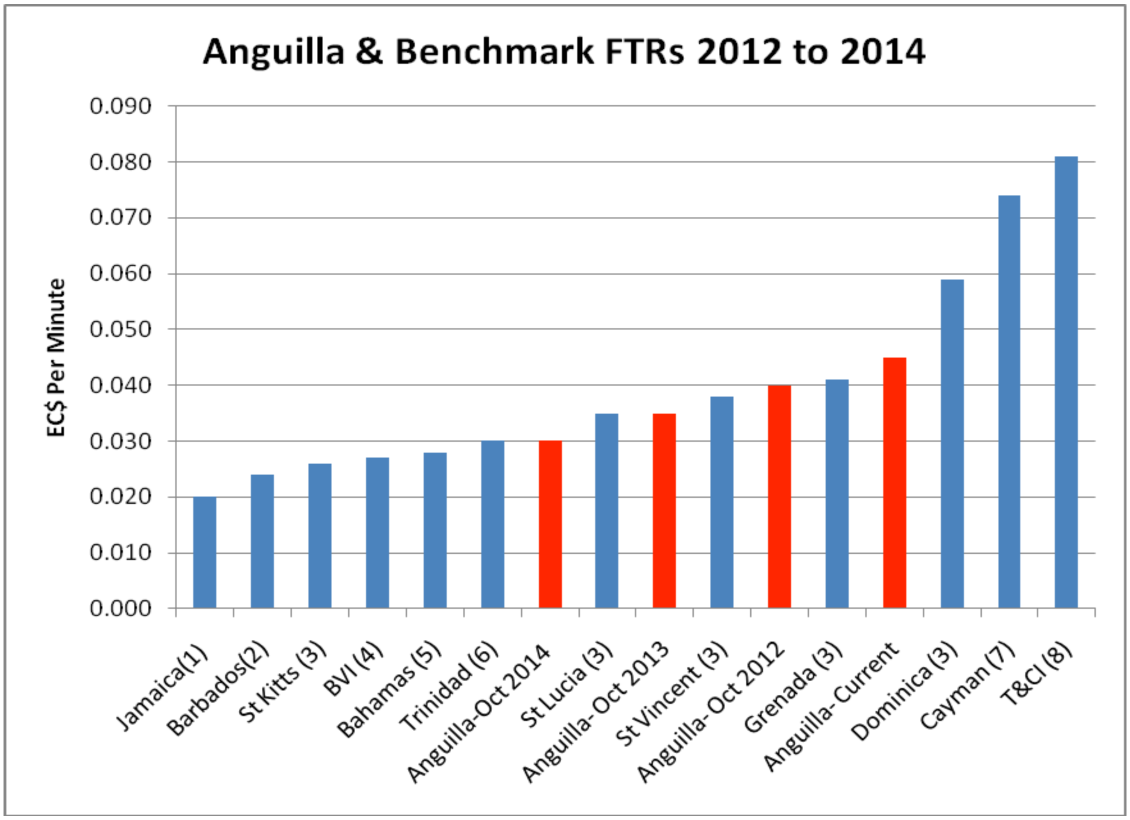
'160. The Commission notes the following comments submitted by Digicel regarding the MTR/FTR ratio:

<u>'Certainly fixed and mobile costs are getting closer together</u> but absolute convergence in terms of a situation where the fixed and mobile costs are exactly the same seems unlikely.'[92](Emphasis added)

151. Given the proposed adjustments in the MTR, the adjustments to the FTR will maintain the MTR/FTR ratio at 5 or above until 2014 and within the range of the current MTR/FTR ratio for the ECTEL rates.

152. The Commission also notes that the FTR of EC$ 0.03 for 2014 will be within the range of the current regional benchmarks as reflected in the following chart.

[92] Op. cit. Digicel, 6 June 2011, page 7.



(The following are the references for the FTRs listed above in paragraph 152.)

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(1) **LIME RIO** 2009- http://www.our.org.jm/images/stories/content/Telecommunications/DeterminationNotice/Decisions/4.6.12-%20Interim%20Mobile%20Termination%20Rate%20Determination.pdf (Accessed September 4 2012); (2) **C&W Barbados** Consolidated RIO February 2010- http://www.ftc.gov.bb/index.php?option=com_content&task=view&id=168&Itemid=26 (Accessed September 4 2012); (3) Table 3, page 19- PUC Decision 2012-102; (4). **TRC** Market Analysis Consultation of 30 September 2011-; http://www.trc.vg/attachments/015_Market%20Analysis_01_Interconnection%20Part%202.pdf (Accessed September 4 2012); (5) **Current BTC RAIO**- http://www2.btcbahamas.com/features/interconnection/BTC_ref_access_inter_2.pdf (Accessed September 4 2012); (6) **TATT Second Arbitration Panel Decision** 7 March 2008- http://www.tatt.org.tt/Portals/0/Documents/Dispute%20Decision%20No.%202.pdf (Accessed September 4 2012); (7) **C&W/Digical Interconnection Agreement** March 2011- http://www.icta.ky/da_interconnect.php (Accessed September 4 2012); (8) Agreement of June 30, 2006- http://www.telecommission.tc/content/root/files/20110124152043-TCI-MTR-Review-Decision-_2011-01-24_-final.pdf (Accessed September 4 2012)

Transit Rate

153. The Commission notes Digicel's comments in the initial phase of this proceeding regarding the level of transit rates in the Caribbean:

'The closest example we have from the Caribbean (but even this represents a cost for transporting traffic between a fixed and a mobile switch separated by several kilometres) is the transit/link rate determined by the regulator in Trinidad and Tobago which determined it to be about 0.06 US cents per minute[93]. Although in the latter case this was based on an alleged cost model output from the incumbent which was not verified by the regulator.[94]

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[93] http://www.tatt.org.tt/RegulatoryFramework/RegulatoryDecisions.aspx, March 7, 2008 Decision, page 58

154. The proposed adjustments in the transit price were described as follows in Decision 2012-101:

'167. In order to provide a glide-path to lower and more efficient transit prices, the Commission proposes a reduction to 1.0 EC cents (0.37 US cents) in 2012 and a further reduction to 0.5 EC cents (0.19 US cents) in 2014.'

155. The Commission finds that the proposed glide-path for the transit price is fair and reasonable for the period 2012 to 2104.

Summary of Findings

156. The Commission notes the provisions in section 4(1) of the IAF Regulations which read as follows:

'Functions of the Commission

4. (1) The Commission shall, consistent with the Act and these Regulations, encourage and, where appropriate, ensure, the adequacy of interconnection between public telecommunications networks and public telecommunications services in such a way as to –

(a) promote efficiency;
(b) promote sustainable competition;
(c) giving maximum benefit to end users; and
(d) ensuring that operators and service providers are compensated for providing interconnection services.' (Emphasis added)

157. The Commission finds that given the provisions to 'promote efficiency', 'sustainable competition' and 'give maximum benefit to end users' as well as 'compensate service providers', the glide-path for interconnection prices in Anguilla proposed for the period 2012 to 2014 and the requirement that such prices be cost-oriented as defined in section 13 of the IAF Regulations and given the regional benchmarks presented in Tables 4 and 6, that the interconnection prices set out below in paragraph 160 are fair and reasonable and are to be implemented according to the schedule set out in paragraph 160.

158. The provisions in section 4(2)(d) of the IAF Regulations are also noted and read as follows:

'(d) act on its own initiative or at the request of either of the parties involved in order to carry out the objectives of the Act and ensure compliance with the Act and these Regulations.'

159. Therefore, having regard to the above analysis and findings and pursuant to the IAF Regulations, the interconnection rates in Table 7 are deemed to be fair and reasonable.

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[94] Digicel, 6 June 2011, pages 6 & 7.

Interconnection Rates to be implemented

160. The changes in the level of interconnection rates are to be effective as follows:

Table 7: Interconnection Rates to be Implemented								
Service	**Current Price**		**Price Effective 1 October 2012**		**Price Effective 1 October 2013**		**Price Effective 1 October 2014**	
	EC cents	US cents [95]	EC cents	US cents	EC cents	US cents	EC cents	US cents
a. PSTN Term. Service	4.5	1.67	4.0	1.48	3.5	1.30	3.0	1.11
b. Mobile Term. Service	30.0	11.1	25.0	9.26	20.0	7.41	15.0	5.56
c. Mobile Term. Service - Transit Portion	1.8	0.67	1.0	0.37	1.0	0.37	0.5	0.19
d. Incoming International to PSTN Term. Service	4.5	1.67	4.0	1.48	3.5	1.30	3.0	1.11
e. Incoming International to Mobile Term. Service	30.0	11.1	25.0	9.26	20.0	7.41	15.0	5.56
f. Incoming International to Mobile Term. Service – Transit Portion	1.8	0.67	1.0	0.37	1.0	0.37	0.5	0.19
g. Special Access Services –access to 999 & 911	3.0	1.11	2.5	0.93	2.0	074	1.5	0.56
h. PSTN Transit – PSTN Transit Service	1.8	0.67	1.0	0.37	1.0	0.37	0.5	0.19

[95] Based on an exchange rate of EC$ 2.7 per US$ 1.00.

IV Directions on Procedure

161. The following directions on procedure are issued pursuant to s.17 (2) (h) of **the Act**, s.4 (2) (d) of the **IAF Regulations 2004,** and s.31 (b) of the **Telecommunications Administrative Procedures Regulations.**

162. The Commission directs C&W, Digicel, CCC and Weblinks to amend the Tariff Schedule in their respective domestic interconnection agreements to reflect the prices hereby approved and set out in Table 7. The respective changes should be effective on the date specified, that is, the initial price revisions are effective 1 October 2012. Subsequent directions to file the revised prices to be effective 1 October 2013 will be issued by the Commission on or before 1 September 2013 and for the revised prices to be effective 1 October 2014 directions will be issued by the Commission on or before 1 September 2014

163. Therefore the parties to the current interconnection agreements are hereby directed to file for approval by the Commission an amendment to the Tariff Schedule of their current Interconnection Agreement that reflects the interconnection prices approved pursuant to paragraph 159 and set out in paragraph 160 of this Decision. The parties are directed to file the initial amended Tariff on or before 26 September 2012.

164. The Commission will commence a review of the prices for interconnection on or before 1 July, 2015 to determine whether the prices should be adjusted having regard to changes and trends in the Caribbean benchmarks listed in Table 4. Licensed service providers may also initiate a review of the interconnection prices by filing either a benchmarking study and/or a costing methodology and results to support their position for any changes in the interconnection prices either before or during the Commission's next scheduled review.

Issued by the Commission at the Valley, Anguilla on this 12th day of September 2012

William Withers

Executive Chairman, Public Utilities Commission