

Appendix I: Round 2 Decisions on Recommendations (DoRs) – Results of an Interconnection Benchmarking Study for the Telecommunications Sector in Trinidad and Tobago

The following summarises interested parties’ comments on the *Results of an Interconnection Benchmarking Study for the Telecommunications Sector of Trinidad and Tobago 2019*, issued by the Telecommunications Authority of Trinidad and Tobago (the **Authority** or **TATT**) in May 2019 (the **Revised 2019 Report**), and provides the Authority’s corresponding decisions.

For background and reference purposes for this Appendix, the Authority notes that in 2016 it contracted an independent consulting firm, Sepulveda Consulting Inc. (**SCI**), to undertake an interconnection benchmarking study. The Authority summarised the results of that study in its *Results of an Interconnection Benchmarking Study for the Telecommunications Sector of Trinidad and Tobago*, which was issued for consultation purposes in March 2017 (the **Initial 2017 Report**).

The Authority contracted SCI to assist in the preparation of the responses to the interested parties’ comments on the Initial 2017 Report (the **Round 1 Comments**) and, based on those comments, the preparation of the **Revised 2019 Report** and the Authority’s associated first-round Decision on Recommendations (the **Round 1 DoRs**).

The Authority has once again contracted SCI to assist with the preparation of the present second-round DoRs (the **Round 2 DoRs**) in response to interested parties’ comments on the Revised 2019 Report (the **Round 2 Comments**). In addition, the Authority notes that the Initial 2017 and Revised 2019 Reports were based on underlying interconnection rate data available to December 2016. Given the passage of time, the Authority also contracted SCI to update and revise the interconnection benchmarking study to include more current interconnection rate data (i.e., updated to December 2020), which is referred to herein as the **Updated 2021 Report**.

The Authority wishes to express its appreciation to the following stakeholders for providing Round 2 Comments: Columbus Communications Trinidad Limited (CCTL), Digicel (Trinidad & Tobago) Limited (Digicel) and Telecommunications Services of Trinidad and Tobago Limited (TSTT).

Lastly, the Authority notes that its following decisions make repeated reference to the Round 1 DoRs; therefore, for ease of reference, the Round 1 DoRs are included in Appendix 2.

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General				
	Digicel	<p>Rather than repeat our submissions in the previous rounds of consultation in detail, Digicel reasserts its various positions as set out previously. The fact that we have not commented in detail on this submission should not be read to indicate that we accept the Authority’s position on any of the matters under consultation.</p> <p>Digicel notes that the Authority has rejected most of the points raised in the previous round of submissions.</p> <p>We believe that in doing this the Authority has made serious errors of law as well as technical errors which invalidate the benchmarking process. We would urge the Authority to reconsider its position.</p> <p>Digicel reserves all of its rights in this matter.</p>		<p>The Authority acknowledges Digicel’s statement that it continues to hold the positions it set out in its Round 1 Comments. In preparing its Round 2 DoRs, the Authority has borne in mind Digicel’s, as well as other parties’, Round 1 Comments when addressing Round 2 Comments.</p> <p>That said, the Authority rejects Digicel’s suggestion that disagreement with any points made by Digicel amounts to technical and/or legal error. The Authority provided clear rationale, with supporting evidence, in its Round 1 DoRs on points where it disagreed with and, accordingly, rejected specific comments or recommendations offered by Digicel. If Digicel believes any errors were made in the Round 1 DoRs, then it should identify them and provide supporting rationale and evidence for its position.</p>

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				The Authority assumes, based on this statement, that Digicel's concerns in this regard are addressed in its Round 2 Comments, which the Authority has considered and addressed below.
	CCTL	<p>CCTL thanks the Authority for the opportunity to provide input in the consultation "Results of an Interconnection Benchmark Study for the Telecommunication's Sector of Trinidad and Tobago 2019."</p> <p>The views expressed herein are not exhaustive. Failure to address any issue in our response, does not in any way indicate acceptance, agreement or relinquishing of CCTL's rights.</p>	<p>CCTL considers that the following adjustments would improve the accuracy and robustness of the benchmarks;</p> <ul style="list-style-type: none"> Extend time series of data beyond 2017. Treat the four French West Indian (FWI) islands as four rather than a group of two observations. Limit the sample to jurisdictions with cost based rates. Update the benchmarks by collecting data beyond 2017 and then prepare a three-year projection from 2020-22. <p>Notwithstanding, as a starting point to get to cost based rates, we support TATT's decision that the cost benchmarks estimated from the study be used as maximum rates for the various interconnection services. This implicitly recognizes that the results of this benchmarking study are biased upwards.</p> <p>The cost benchmarks should be implemented in one stage, instead of using the glidepath approach.</p>	<p>The Authority agrees with CCTL's position on the need to update the Revised 2019 Report to include more current interconnection rate data, which is why it has prepared the Updated 2021 Report.</p> <p>CCTL's other benchmarking sample selection suggestions relating to (i) the treatment of the FWI observations and (ii) reliance on cost-based versus other benchmark jurisdictions are addressed below in Section 3 of these Round 2 DoRs. As well, CCTL's proposal to implement the recommended cost benchmarks in one rather than three steps is also addressed below in Section 6. The Authority notes that these same issues were also previously addressed in the Round 1 DoRs as noted and discussed in the Sections 3 and 6 below.</p>
Executive Summary				
Executive Summary	Digicel	<p>The Authority sets out its view that "...The benchmarking results indicate that the domestic MTR and FTR as well as the MICC and FICC in Trinidad and Tobago are higher than the corresponding recommended costing benchmarks and, therefore, above cost."</p> <p>The conclusion that the domestic MTRs in Trinidad and Tobago are above cost cannot be validly drawn by reference to a benchmark. The only conclusion that can be safely drawn is that the MTRs are above the benchmark. The benchmark</p>	It is recommended that the Authority excises this conclusion from the document and conducts afresh any analysis which directly or indirectly relies on this conclusion.	<p>The Authority appreciates and acknowledges Digicel comments but disagrees with Digicel's claim that current interconnection rates in Trinidad and Tobago are not above cost. The Authority notes that Digicel made a similar claim in its Round 1 Comments, which was addressed and previously rejected by the Authority in the Round 1 DoRs (e.g., pages 9-11).</p> <p>As previously indicated by the Authority in the Round 1 DoRs, the use of a benchmarking approach is fully consistent with regulation 15(2) of the Interconnection Regulations, which states:</p>

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		<p>gives no information about network costs in Trinidad and Tobago; it is simply an average of the MTRs set using different costing methodologies in a variety of different jurisdictions which bear some limited characteristics in common with Trinidad and Tobago.</p> <p>Any analysis which relies on this conclusion is flawed and invalid.</p>		<p><i>“Where the relevant data for the establishment of the costing methodologies, models or formulae are unavailable within a reasonable time, the concessionaire may set interconnection rates with reference to such costing benchmarks, as determined by the Authority, that comport with internationally accepted standards for such benchmarks.”</i></p> <p>The sample selection criteria used in the Revised 2019 Report ensure that all jurisdictions included in the benchmarking sample share significant commonalities and, as a result, are suitably and directly comparable with Trinidad and Tobago for benchmarking purposes. In addition, the Revised 2019 Report includes both sensitivity and normalisation analyses, to further ensure that the benchmark sample averages are fully appropriate for setting benchmark interconnection costs for Trinidad and Tobago.</p> <p>Additionally, the interconnection rates in each benchmark sample jurisdiction included in the Revised 2019 Report are, as a matter of standard policy practice, reflective of costs. In fact, as indicated in the Revised 2019 Report, between up to 70% of the interconnection rates in the jurisdictions included in the benchmark analysis are directly based on costs (i.e., Pure LRIC or LRIC+ cost models) and are included in the cost-based sample averages. It was based on the observation that the MTR and FTR in Trinidad and Tobago are well above the respective cost-based averages (lower bounds for benchmarking purposes) that the Authority determined that these rates are above costs, as indicated in the Initial 2017 and Revised 2019 Reports.</p> <p>The Authority also considers Digicel’s implied claim that interconnection costs established in other Caribbean jurisdictions to be of no relevance in Trinidad and Tobago to be without merit, especially in view of the fact that Digicel itself operates most of those same jurisdictions and has been subject to the corresponding regulated interconnection rates in each case for years.</p>
<p>Executive Summary</p> <p>“These benchmarks are rate maxima, meaning that operators are free to set.”</p>	TSTT	<p>TSTT notes with concern that TATT proposes to introduce the results of the benchmark study as maxima without introducing contemporaneous directions for minima.</p> <p>This approach could lead to parties seeking to drive interconnection rates so low that it would be delivered at per minute rates below the per minute cost of production of the service. Such rates would be predatory in nature and not redound to benefits to the industry and sector in the long haul.</p> <p>It is noteworthy that while a review of TATT's prior published frameworks and proposed regulations with respect to price regulation, as well as the guidelines for regulatory decision</p>	<p>The cited statement should be deleted.</p> <p>TATT may consider adjusting this document so that it creates minima benchmark rates in conjunction with proposed maxima. In this way a range of rates may be proposed that facilitates the process of negotiation envisaged in the Act, the Regulations and TATT's own policies.</p>	<p>The Authority appreciates TSTT’s comments and notes its concern on this issue. The Authority also notes in this respect that the Revised 2019 Report establishes costing benchmarks, which are used to set recommended interconnection rate “maxima”. Under this approach, operators would be free to negotiate interconnection rates at or below the recommended maxima.</p> <p>The Authority considers that current interconnection-rates in Trinidad and Tobago are well above cost. The recommended costing benchmarks developed in the Revised 2019 Report are intended as target maximum rate levels to be reached in step-wise process over several years to ensure interconnection rates move closer to cost. The Based on the results of the benchmarking study, the Authority is confident that the target rate maxima are not below cost.</p>

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		<p>making on its website demonstrate exclusive focus on mitigating with the establishment of predatory price regimes in the wholesale and retail market spheres, this Study veers from this focus on ensuring long term market self-sustainability.</p> <p>It would have been expected that the Benchmark proposed would provide a range within which rates would be acceptable. To do otherwise is at odds with TATT's stated policies on price regulations, and indeed, be contrary to the provisions of the Act which provides no discretion for TATT to institute or authorize predatory pricing practices in Trinidad and Tobago.</p> <p>The approach of establishing maxima only seems to limit the ability of operators to negotiate rates - a key underlying principle of TATT's Policy on Interconnection and Access (2005).</p>	<p>TATT should review its document to ensure that it is consistent with the policies articulated in its</p> <p>a) Draft Price Regulation Framework (2015); b) Draft Price Regulations (2013); and c) guidelines to regulatory decision making</p> <p>none of which envisage the establishment of regimes where predatory pricing regimes are maintained by operators, nor established by TATT.</p> <p>Indeed, TATT should be reminded that the establishment of a regime that reflects predatory pricing would be an inaction that demonstrates gross negligence on the part of the statutory regulator and be in contravention of the spirit and the letter of the Act, in particular S.3, 24, 25 and 29.</p>	<p>In this context, the objective of establishing rate maxima is to facilitate the discovery of those costs in the context of operator negotiations. As discussed below, the Authority considers that the risk of an anti-competitive rates being jointly established by operators is very low. However, to be clear, the Authority is not advocating for any anti-competitive rates and would investigate any related allegation that an operator is attempting or is applying an anti-competitive rate.</p> <p>More generally, from a regulatory rate-setting perspective, the Authority notes that setting price “minima” is a rare regulatory measure. TSTT failed to cite any examples where such a pricing regulatory policy was followed by an NRA. In any event, doing so, as suggested by TSTT, is neither necessary nor appropriate. First, as noted above, it could unduly restrict the flexibility of the negotiation process to “discover” the appropriate cost level of rates. Second, the Authority retains the capacity to investigate allegations of anti-competitive rates. Further, from a practical basis, since interconnecting operators could, at one extreme, agree to a “Bill & Keep” interconnection arrangement under which the interconnection rate would effectively be zero. The Authority would not necessarily consider such an arrangement as anti-competitive, especially if provisions were included to take into account any traffic imbalances. In fact, this approach was advocated by the Ministry of Public Utilities (MPU) in its Round 1 Comments.</p> <p>As well, the Authority notes that any interconnection rate negotiated between any two operators would automatically be available to other interconnecting operators due to the non-discrimination obligation stipulated under regulation 5(1) of the Interconnection Regulations, which states:</p> <p><i>“A concessionaire shall provide interconnection under the same terms and conditions and of the same quality as it provides for its own networks and services, the networks and services of its subsidiaries and partners, or the networks and services of any other concessionaire to which it provides interconnection.”</i></p> <p>Consequently, any interconnection rate negotiated between two operators would need to be mutually agreed to among all interconnecting operators and, therefore, very unlikely to raise any anti-competitive concerns. If any such concerns did arise, they could be brought to the Authority’s attention. In any event, experience to date suggests that negotiating reductions in interconnection rates has proven very difficult in practice; therefore, the Authority assumes that the recommended maxima would most likely provide guidance for all operators during rate negotiations.</p>

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				The Authority also considers that this approach to effectively establish a recommended “cap” on interconnection rates is fully consistent with the Price Regulations. In the context of regulated retail prices, establishment of price caps is commonplace, but rarely, if ever, explicit price floors. Further, the Authority also considers that the approach to be consistent with the noted guidelines to regulatory decision making as well as the Act.
Executive Summary	TSTT	<p>It is not articulated the period of validity of this benchmark study. The first round of consultation was published in 2017. This second round, two years later in 2019.</p> <p>The question arises whether the findings of this report remain applicable to a market which has evolved, by the effluxion of time, well beyond the conditions which guided the initial analysis.</p> <p>TATT should consider whether, due to the delays in the completion of this process, whether this Study will be relevant when interconnection negotiations for the future periods are undertaken.</p>	<p>TATT has to articulate the period of validity of this Benchmark Study’s results.</p> <p>With two years' passage between the initial review and this second round, should consider scrapping this process and initiating a new one where the information sourced and used will be contemporary and current to the period of consideration – circa 2021 and beyond.</p>	The Authority agrees with TSTT’s position on the need to update the Revised 2019 Report to include more current interconnection rate data. The Authority has taken action to address this issue by updating the Revised 2019 Report, the results of which are included in the Updated 2021 Report.
Section 2 Legislative Basis				
Legislative Basis	Digicel	<p>The Authority sets out the provisions of Section 25(2)(m) of the Telecommunications Act, Chap. 47:31 “...the Authority shall require a concessionaire to ... disaggregate the network and, on a cost oriented basis such as the Authority may prescribe, establish prices for its individual elements and offer the elements at the established prices to other concessionaires of public telecommunications networks and public telecommunications services”</p> <p>This provision clearly sets out that the Authority cannot require a Concessionaire to set prices other than on a cost oriented basis.</p> <p>As we have pointed out in previous submissions during this process the Authority has already prescribed the cost oriented basis on which pricing of interconnect services in Trinidad and Tobago should be set.</p> <p>Specifically on 31 May 2016 TATT proposed this manner to be top-down CCA-LRAIC+ of Digicel’s own (actual) costs.</p>	If the Authority wishes to use a benchmarking process it must demonstrate that the output is cost oriented.	<p>The Authority notes that that issue was addressed in the Round 1 DoRs (e.g., pages 1-11).</p> <p>To repeat, the Revised 2019 Report was prepared pursuant to regulation 15(2) of the Interconnection Regulations, which states:</p> <p><i>“Where the relevant data for the establishment of the costing methodologies, models or formulae are unavailable within a reasonable time, the concessionaire may set interconnection rates with reference to such costing benchmarks, as determined by the Authority, that comport with internationally accepted standards for such benchmarks.”</i></p> <p>The Authority will continue to pursue avenues to advance a cost model which shall be consulted upon in due course. In this context, the Authority is fully mindful of its past proposals with respect to the cost basis for modelling purposes. To be clear, however, for benchmarking purposes, and pursuant to regulation 15(2), the Authority considers that it can take into account costing benchmarks that are based on reasonable costing methodologies, including variations of LRIC+ and pure LRIC. Hence, for the Revised 2019 Report, the Authority used the cost-based averages as lower bounds for benchmarking purposes, and those cost-based averages included a series of costing</p>

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		<p>We note that notwithstanding this being pointed out to the Authority in the previous round of consultation the Authority has chosen to ignore its own findings that the appropriate approach to cost orientation in Trinidad and Tobago is top-down CCA-LRAIC+ and instead use an arithmetic average of MTRs and FTRs from other markets. The underlying cost methodologies for these comparator markets have not been examined by the Authority and the Authority has no idea whether or not these inputs to the benchmark are cost oriented or not. It cannot and does not know if the resulting output is cost oriented. On this basis it is unlawful for the Authority to require Concessionaires to set prices by reference to the Benchmark currently being consulted on.</p>		<p>benchmarks based on reasonable costing methodologies, including variations of LRIC+ and pure LRIC.</p> <p>Based on the methodology applied in the Revised 2019 Report the Authority is confident that the resultant recommended costing benchmarks are not below costs. Notwithstanding this, as set out in the response below in Section 6.3, the Authority considers that the application of the overall methodology included in the Revised 2019 Report, including the normalization analysis, leaves sufficient margin to ensure that the recommended costing benchmarks are above cost.</p> <p>More generally, Digicel's claim that the Revised 2019 Report does not take in consideration the nature of the cost methodologies used in comparator jurisdictions is incorrect. The approach followed to set interconnection rates in each benchmark sample jurisdiction has been carefully considered.</p>
Legislative Basis	Digicel	<p>The Authority also sets out the provisions of regulation 15(2) of the Interconnection Regulations:</p> <p><i>"...15(2) Where the relevant data for the establishment of the costing methodologies, models or formulae are unavailable within a reasonable time, the concessionaire may set interconnection rates with reference to such costing benchmarks, as determined by the Authority, that comport with internationally accepted standards for such benchmarks."</i></p> <p>The Authority has already defined the costing methodology as being top-down CCA-LRAIC+. The Authority may only use benchmarks where models or formulae are not available in a reasonable time.</p> <p>It is notable that the Authority's last activity on the development of a model was in 2016. Any unavailability of a model or formulae is a direct result of the Authority's inaction. The Authority now proposes to make use of a delay</p>	<p>The Authority has prematurely invoked the provisions of Regulation 15(2) and has adopted a benchmarking methodology which does not comport with international standards.</p> <p>The Authority must either adopt a new benchmarking methodology OR abandon the premature invocation of Regulation 15(2) and proceed instead with a proper cost modelling.</p>	<p>The Authority notes Digicel's comments but disagrees with Digicel's claim that interconnection "price" benchmarks are not the same as "cost" benchmarks and, therefore, the former cannot be used for benchmarking purposes pursuant to regulation 15(2) of the Interconnection Regulations.</p> <p>As indicated in the response to Digicel's previous comment above, the costing benchmarks included in the cost-based sample averages used by the Authority as lower bounds for benchmarking purposes are based on standard costing methodologies, including variations of LRIC+ or Pure LRIC.</p> <p>Digicel's claim that the benchmarking study does not comport with international standards is also incorrect. As previously noted in the Round 1 DoRs, the approach used is consistent with the <i>Practical Guide on Benchmarking Telecommunication Prices</i>, issued by the International Telecommunication Union (ITU) published August 2014.¹ As noted, it has been used several times in the Turks and Caicos Islands, including in an interconnection rate review consultation conducted in 2020 (in which Digicel participated).² Further references demonstrating the compliance of the</p>

¹ <https://www.itu.int/pub/D-PREF-EF.PG.BENCH-2014>.

² February 2020 Consultation Document: <http://www.telecommission.tc/content/root/files/20200224204717-TCI-Interconnection-Rate-Review-ConDoc-February-24-2020.pdf> and October 2020 Decision: <http://www.telecommission.tc/content/root/files/20201013202350-TCI-3rd-ICR-Review-Decision-DN-2020-2-Final.pdf>.

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		<p>of its own making to invoke the provisions of Regulation 15(2).</p> <p>Digicel's position is that delays due to the Authority's management of the model development do not make the time "unreasonable" and that invoking such delays as the basis for abandoning the model development and using a benchmark is not permissible.</p> <p>Digicel notes that the intent of Regulation 15(2) would appear be to provide a proxy for a fully modelled price in a "reasonable" timeframe.</p> <p>The Authority commenced the current benchmarking process in 2016 and took two years to respond to the previous round of consultation. It is by reference to this protracted timeline that the time to develop a model must be judged to be reasonable or unreasonable.</p> <p>It is Digicel's view that the Authority has not sufficiently made the case that the availability of the model is unreasonably long and therefore has no lawful basis to invoke the provisions of Regulation 15(2).</p> <p>Digicel notes that Regulation 15(2) sets out that where it is used then Concessionaires may set prices by reference to "... costing benchmarks, as determined by the Authority, that comport with internationally accepted standards for such benchmarks" [emphasis added]</p> <p>It should be noted that what is permitted is the use of "costing benchmarks" and not "pricing benchmarks". This means that the comparators used in the benchmark must be cost references not price references. Unless the Authority can demonstrate that the comparators it wishes to use are cost comparators then they cannot be used in the benchmarking process.</p>		<p>benchmarking approach with international standards are provided in the Round 1 DoRs (pages 9-11 and 18-20).³</p> <p>The only evidence offered by Digicel to suggest that the benchmarking study does not comport to international standards is reference to a brief excerpt from a 2009 letter from the Director General (DG) of the National Regulatory Agency (NRA) in Malta. The letter excerpt comments on the use of price comparisons for the purpose of setting price controls. It suggests that "objective criteria" should be used when selecting comparator jurisdictions and that differences between "the relevant market(s) in the different [EU] Member States and its home market" should also be taken into account. Based on this brief excerpt, Digicel states that this "imposes a high standard on the selection of comparators" and requires that the regulator select comparators that "make the most suitable basis for comparison".</p> <p>In response, the Authority first notes that this brief excerpt from a letter does not amount to an "international standard" for benchmarking studies. The Authority would refer Digicel to the above-noted ITU Guide as an example of a more suitable reference for this purpose. Second, it is unclear what the objective or purpose of the cited excerpt was since Digicel did not provide a full copy of the letter or any context for the letter. It could be that the Malta NRA DG was concerned about the use of some EU Members as comparators to Malta, but it is unclear from the little information provided by Digicel. In any case, the Authority's benchmarking study does not use EU Members as comparator jurisdictions (though they are used for sensitivity and cross-check purposes). Third, and perhaps most importantly, the benchmarking study includes a set of "objective" sample jurisdiction selection criteria that ensure all selected sample jurisdictions are suitable comparators. The Authority believes that its criteria does indeed meet a "high standard on the selection of comparators". In addition, sensitivity and normalisation analysis were also conducted to take into account differences between selected sample jurisdictions and Trinidad and Tobago. In other words, the methodology used in the Revised 2019 Report is consistent with international standards.</p>

³ An additional, a recent comparable benchmarking approach was conducted by the NRA in The Bahamas (URCA) – September 2019 Preliminary Determination: <https://www.urcabahamas.bs/consultations/ecs-49-2019-wholesale-fixed-and-mobile-termination-rates-for-smp-licensees/> and December 2019 Final Determination: <https://www.urcabahamas.bs/consultations/ecs-74-2019-wholesale-fixed-and-mobile-termination-rates-for-smp-licensees/>.

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		<p>Further any such benchmarks must “comport with internationally accepted standards”</p> <p>The Authority sets out that the benchmarking conforms to a methodology used previously by its Consultant in the Turks and Caicos Islands.</p> <p>This is a single reference not an internationally accepted standard.</p> <p>The EU Regulatory Framework governs 28 member states. In a letter dated 26th June, 2009, written by the Director General of the Commission responsible for the telecommunications sector to the NRA in Malta, by way of comment under Article 7(3) of the Framework Directive on that authority’s notification of proposed obligations including price control, it advised:</p> <p><i>“...if an NRA decides to impose price regulation on the basis of a comparison with other countries, it should carefully select objective criteria and clearly justify the reasons for which it believes that the relevant market(s) in these countries, against the background of those criteria, make the most suitable basis for comparison, taking into account differences between the conditions prevailing on the relevant market(s) in the different Member States and its home market.”</i></p> <p>This imposes a high standard on the selection of comparators. It requires that a regulator must select comparators “make the most suitable basis for comparison”</p> <p>In the judgement in a successful appeal against the use of benchmarking by the Irish Regulator the Court of First Instance set out the following:</p> <p><i>“127. The appellant was amongst the undertakings which made submissions by way of objection to the proposed benchmarking approach. As already indicated, in Section 7.2.3 of the Price Control Decision, ComReg sets out its</i></p>		<p>Digicel also provides a two-paragraph excerpt from an un-dated Irish Court decision⁴ that, in turn, cites an excerpt from an un-dated ComReg (the Irish NRA) decision that, further still, summarizes certain conclusions of an undated, untitled third-party consultant’s report (prepared by Analysys Mason for ComReg) on factors that could influence mobile interconnection incremental costs levels across EU Member States. The excerpt from the Court Decision also indicates that the court found the consultant’s conclusions to be tentative in nature, but otherwise the Court offered no conclusions on benchmarking methodology matters. Based on this excerpt, Digicel claims that ComReg used a greater number of selection criteria than the Authority and yet ComReg was nevertheless criticised for not using an even larger number of selection criteria. On this basis, Digicel claims the Authority’s benchmark study is out of step with international standards.</p> <p>In response, the Authority notes that there is once again no background or context provided with the excerpt from the referenced Irish Court decision. It appears that Digicel considers the benchmarking jurisdiction selection criteria that were discussed in the Irish Court decision to be too limited in nature. However, the benchmarking jurisdiction selection criteria being discussed in the decision were neither identified in the excerpt nor provided by Digicel. In any event, in the Authority’s view an excerpt from an un-dated, Irish Court decision does not constitute an “international standard” for benchmarking study purposes.</p> <p>The Commission adds that many of the factors included in the summary included in the excerpt from the un-dated and untitled Analysys Mason report (which appears to be very old since it refers to 2G/3G mobile technology) conflate benchmarking jurisdiction selection criteria and normalization considerations. The Revised 2019 Report includes a detailed set of objection sample selection criteria and well as a comprehensive set of normalization factors.</p> <p>In conclusion, the Authority considers Digicel’s claim that the benchmarking methodology relied on by TATT is not consistent with international standards to be not only incorrect but also baseless.</p>

⁴ The Authority notes that it was unable to locate copy of the full Irish Court decision using the link provided in Digicel’s Round 2 Comments. Therefore, the Authority has not seen the full decision. In any event, as noted, Digicel did not provide background on or any context for the decision to offer any explanation or justification of its relevance to the present proceeding.

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		<p><i>response to the submissions that were made. It acknowledges “the possible issues with using a benchmark approach and the robustness of such an approach” and in order to “address these concerns” commissioned Analysys Mason to conduct a study of the models developed in the other Member States. That benchmarking report sought to examine whether the underlying “cost drivers” of the rates differed between countries and endeavoured to compare the situation in Ireland with other Member States in relation to the characteristics that materially affect pure incremental cost of the termination service for mobile calls. At para. 7.31 of the Price Control Decision ComReg summarises the conclusions made by its consultants in the analysis.</i></p> <p><i>The summary is as follows:</i></p> <p><i>“- Two of the factors analysed (the extent of network coverage and voice usage) may lead to termination cost being higher in Ireland than the average of the benchmarked countries.</i></p> <p><i>- One of the factors analysed (market share) may lead to termination costs being lower in Ireland than the average of the benchmarked countries.</i></p> <p><i>- For five factors analysed (spectrum allocations, 2G/3G traffic mix, population density, radio deployment costs and WACC) it is not obvious at this stage whether they may lead to termination costs being higher or lower in Ireland than the average of the benchmarked countries.</i></p> <p><i>- Seven factors analysed (spectrum fees, topography, subscriber penetration, mobile broadband usage, switching network topology and costs, back haul technology and model duration) would probably not lead to termination costs being different from the average of the benchmark countries.”</i></p> <p><i>128. It is striking that the conclusions of the consultants are couched in terms which are either tentative or speculative. Two of the factors might lead to higher costs in Ireland and one to a lower termination cost. But in respect of the twelve other factors examined, there is clearly a high degree of either express or implied uncertainty as to what the position is.”</i></p> <p><i>The selection criteria used by the Authority to ensure that the comparators it uses are appropriate are far fewer than those used by the Irish Regulator and the Irish Regulator was</i></p>		

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		<p>criticised for not properly analysing this expanded set of selection criteria in choosing the comparators.</p> <p>In light of this it is Digicel's view that the benchmarking method chosen by the Authority does not comport with internationally accepted standards and is ultra vires.</p>		
Legislative Basis	CCTL	<p>The Telecommunications (Interconnection) Regulations (2006) provides in Section 15(1) that,</p> <p><i>"A concessionaire shall set interconnection rates based on cost determined in accordance with such costing methodologies and models and formulae as the Authority may from time to time establish."</i></p> <p>Section 15(2) further provides that,</p> <p><i>"Where the relevant data for the establishment of the costing methodologies, models or formulae are unavailable within a reasonable time, the concessionaire may set interconnection rates with reference to such costing benchmarks, as determined by the Authority that comport with international accepted standards for such benchmarks."</i></p> <p>Given the there is no industry cost model that is established and approved by TATT, and relying on the provisions of Section 15(2), CCTL supports using the output from, "Results of an Interconnection Benchmark Study for the Telecommunications Sector of Trinidad and Tobago 2019" to inform the setting of interconnection rates.</p>	<p>Consistent with provisions of Section 15(2) of the Telecommunication's (Interconnection) Regulations (2006) CCTL supports the use of the results of the benchmark study to inform the setting of interconnection rates in the absence of an industry cost model which is approved by TATT.</p>	<p>The Authority acknowledges and appreciates CCTL's support for the approach to setting the recommended costing benchmarks included in the Revised 2019 Report.</p>
Section 3 Benchmark Sample Selection Criteria				
3.1 Sample Selection Criteria	Digicel	<p>As pointed out in previous submissions the Authority has used a very limited set of criteria in selecting comparators and has excluded selection criteria which would ensure that the benchmark output was a reasonable proxy for the actual cost of termination in Trinidad and Tobago.</p> <p>Most strikingly the criteria did not seek to select comparators with similar technology usage, coverage or voice usage to Trinidad and Tobago. As indicated in the Irish Judgement two of these factors could lead to higher MTRs.</p> <p>The Authority's approach to coming up with a proxy for unit costs for termination in Trinidad and Tobago and using these</p>	<p>The Authority should revise its comparator selection criteria to ensure that only comparator data which can act as a reasonable proxy for unit termination cost in Trinidad and Tobago are used.</p>	<p>The Authority notes that Digicel raised this same comparator selection criteria issue in its Round 1 Comments and they were addressed by the Authority in the Round 1 DoRs (pages 86-89).</p> <p>To start, the Authority notes that Digicel appears to have conflated benchmarking sample selection criteria with normalisation considerations. The sample selection criteria set out in Section 3 of Revised 2019 Report ensure that the jurisdictions in the included in the benchmarking sample are suitably and directly comparable to Trinidad and Tobago. That does not mean that each selected jurisdiction must be virtually identical to Trinidad and Tobago, but rather reasonably comparable. The Authority considers that the benchmarking study more than adequately meets this objective by focusing strictly on Caribbean island jurisdictions.</p>

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		<p>comparators is akin to trying to determine the height of a particular person in Trinidad by generating an average of the average heights of nationals in other Caribbean countries while excluding averages which are more than 7 years old.</p> <p>The Authority's approach in using comparators with a wide range of underlying costing methodology means that the resulting benchmark is not even an estimate of what cost oriented interconnect pricing would be in Trinidad and Tobago but is an average of the output of different costing methodologies without any reference to their relevance to local market conditions.</p>		<p>More specific geographic, demographic and socio-economic factors are also considered in the benchmarking study as normalisation variables, and they include:</p> <ul style="list-style-type: none"> a) population size b) land area c) population density d) GDP per capita e) fixed subscriber count f) mobile subscriber count g) fixed line density h) mobile density i) number of mobile service providers (as a measure of market competitiveness) j) whether or not interconnection rates were set on the basis of a costs or some other approach <p>As explained in the Round 1 DoRs, voice usage and coverage area across benchmarking sample jurisdictions are generally not publicly available information. However, they are captured indirectly in the study by examining the effect, if any, of population levels and density and subscriber count levels and penetration across benchmarking sample jurisdictions.</p> <p>As noted in the Round 1 DoRs, the Authority agrees that differences in mobile and/or or fixed network technologies may affect the relative levels of interconnection costs between sample jurisdictions. However, specifying and quantifying technology variables in a useful and meaningful manner for normalisation purposes is not straightforward, and no suggestions on how this could be accomplished (e.g., through reference to another benchmarking study) were offered by Digicel.</p> <p>That said, the Authority notes that of the 9 jurisdictions included in the post-2012 benchmarking sample in the Revised 2019 Report, Digicel operates in 6 (or 66%) of them. Cable & Wireless (which owns significant positions both TSTT and CCTL) operates in 7 (or 78%) of them. The Authority does not consider there is any reason to believe there would be significant technology differences used by either Digital or Cable & Wireless across the various Caribbean jurisdictions in which they operate. For instance, in the case of mobile technology it appears that both operators have deployed 4G LTE across the Caribbean Region. Consequently, the Authority considers that there is little if any reason that there would be significant measurable</p>

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				<p>differences interconnection costs arising in technology differences, since none appear to exist in practice.</p> <p>Lastly, the Authority reiterates that it disagrees with Digicel's assertion that interconnection rates in other sample jurisdictions cannot be used for benchmarking purposes and, therefore, setting the recommended costing benchmarks in the Revised 2019 Report. This matter is also addressed above in relation to similar comments made by TSTT and Digicel.</p>
3.1 Sample Selection Criteria	Digicel	<p>The Authority will be aware that there are fundamental differences between different costing methodologies. Having proposed a methodology to operators which allows the recovery of Long Run Average Incremental Costs plus a proportionate market up for fixed and common costs (top down CCA LRAIC+) the Authority chose to include comparators which use Bottom Up Long Run Incremental Costs (BU-LRIC) knowing that this will have the effect of lowering the average. Further it does not weight or adjust these comparators to offset that fact that they do not allow for the recovery of fixed or common costs and use the marginal cost increment rather than the average cost increment. Nor does it take account of the fact that when using a simple arithmetic average the inclusion of a disproportionate volume of BU-LRIC comparators will further skew the average downwards.</p> <p>The fact that the graphs in Annex III show that the recommended MTR benchmark approaches the European benchmark (which is predominantly based on BU-LRIC) is an indication the benchmarking approach and sample selection adopted by the Authority is underestimating what a properly modelled top down CCA LRAIC+ price would be.</p>	The Authority should exclude comparators which it knows are below the relevant cost standard which it has prescribed for use in Trinidad and Tobago.	<p>The Authority appreciates and acknowledges Digicel's comments but also notes that Digicel raised this same issue in its Round 1 Comments and it was addressed and rejected by the Authority in the Round 1 DoRs (e.g., pages 7-9 and 20-21). The Authority once again disagrees with Digicel's proposed costing basis to exclude comparators from the benchmarking sample.</p> <p>First, in this regard, the Authority reminds Digicel that the top-down CCA-LRAIC+ cost standard determined by the Authority was the approach chosen for the development of its costing model, whereas the benchmarking of comparator countries is an approach being adopted by the Authority in the absence of the cost model. In accordance with regulation 15(2) of the Interconnection regulations (quoted earlier), it is only legally obligated to ensure that the benchmarks chosen "comport with internationally accepted standards for such benchmarks." Hence, as noted above, the cost-based averages included as a lower bound for benchmarking purposes in the Revised 2019 Report include a series of costing benchmarks based on standard costing methodologies, including variations of LRIC+ and Pure LRIC.</p> <p>Second, and further to the above, the Authority reminds Digicel that the cost-based averages included as a lower bound for benchmarking purposes includes both variations of LRIC+ and Pure LRIC. The lower bound therefore is based on the levels and trends of these two types of rates – they are not based solely on Pure LRIC rates. The Authority considers that it would not be appropriate to artificially limit the size of the benchmarking sample, as suggested by Digicel.</p> <p>Third, the Authority notes that EU interconnection rates are not used for benchmark cost determination purposes in the benchmarking study, but rather for sensitivity and cross-check purposes. At the same time, it is not surprising that the benchmark cost recommendations are close to EU rate averages since interconnection rates have been dropping dramatically over the last decade globally.</p>
3.1 Sample Selection Criteria	CCTL	We believe that the six sample criteria represent reasonable starting point for developing benchmarks for interconnection	CCTL has no issues with the sample criteria.	The Authority acknowledges CCTL's support for the sample selection criteria included in the Revised 2019 Report.

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		<p>rates in Trinidad and Tobago. The selected criteria resulted in an initial sample of twenty three jurisdictions.</p> <p>We believe the cross-section of 23 countries selected for this sample is appropriate. However, we believe that the relevant time-series should not conclude in March 2017, but include observations through to the present. By truncating the time-series at 2017, the usable cross section of countries is substantially reduced. For instance, as we explain further below, it unnecessarily excludes the five ECTEL countries that underwent interconnection reform in 2017 with new rates implemented May 2018.</p> <p>This exclusion has likely resulted from the time lag of over two years between collection of the original data set and this second stage of this proceeding. The ECTEL cost based rates were updated during this timeframe. We believe that in this case the time series should be extended to include these observations.</p>	<p>TATT should extend the time-series data included in the sample beyond March 2017 to improve the accuracy and completeness of the sample. This would capture the rate reductions in ECTEL countries.</p>	<p>As noted above, the Authority agrees with CCTL's position on the need to update the Revised 2019 Report to include more current interconnection rate data. The Authority has taken action to address this issue by updating the Revised 2019 Report, the results of which are included in the Updated 2021 Report. The updated report includes consideration of the recently established cost-based interconnection rates in the five ECTEL Member States.</p>
3.1 Sample Selection Criteria	TSTT	<p>TSTT appreciates the rigor with which TATT and its advisors have undertaken in establishing a methodology with which a plausible and appropriate benchmark could be derived for Trinidad and Tobago.</p> <p>However, TSTT expresses concerns about how the methodology was implemented, as some of the implementation decisions fly in the face of methodological principles articulated in the document. This seems to suggest an inherent bias was applied in the developing of the sample with the objective to possibly "rig" results that are in line with unstated objectives and preferences, to the detriment of the integrity of the Study which could have further negative implications to the market.</p>	<p>The implementation of the methodology must remain consistent with the principles therein.</p> <p>TATT should seek to ensure that inherent biases are minimized in the implementation of the methodology proposed. Without such due care, the results of the Study are compromised, and the integrity of the process brought into question.</p>	<p>The Authority notes that no specific element(s) of the Revised 2019 Report is cited by TSTT as being potentially "biased" or "rigged". Further, no substantiation whatsoever of its allegation(s) is offered by TSTT. Consequently, the Authority is unable to address TSTT's concern(s) given they are not articulated.</p> <p>That said, the Authority rejects outright TSTT's suggestion that the benchmarking study and results are in any way biased or rigged. The study prepared by an independent consultancy and the benchmarking methodology used followed international standard practice. The Authority considers the Revised 2019 Report robust as well as fair and reasonable.</p> <p>See also the Authority's response to TSTT's comments on Section 6.1.4 of the Revised 2019 Report below.</p>
3.1 Sample Selection Criteria and 3.2 Full Benchmark Sample Jurisdictions	TSTT	<p>As an example, a primary consideration of the methodology as stated in S.3.1 of the paper is that "comparability" of the markets to Trinidad and Tobago's and climatic conditions. In principle TSTT agrees with this methodological position.</p> <p>However, TATT's considerations of sample jurisdictions include French West Indies territories, the interconnection rates of which are not developed in the context of the on-island market conditions, but are instead established by fiat from the "metropole", France, in the EU. As such, the rates in</p>	<p>TATT's sample should adhere to the conditionalities identified. As such, where jurisdictions are not comparable to T&T in either the policy directing regulatory costing or the operational approach in the market, those should not be included in the sample.</p>	<p>The Authority notes TSTT's reference to the sample selection criteria in the benchmarking study that are intended to ensure suitability and direct "comparability" of selected sample jurisdictions to Trinidad and Tobago.</p> <p>The four FWI jurisdictions included in the benchmarking study satisfy all the established sample selection criteria and also ensure that the interconnection rates in place in each instance were implemented through a post-2012 regulatory decision – i.e., satisfying the added "vintage" selection criterion discussed in the Revised 2019 Report.</p>

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		<p>the FWI are not reflective of operations in line with comparable geographic and climatic (and socio-economic) conditions with Trinidad and Tobago. Instead the rates in the FWI reflect the rates in continental Europe - a region which TATT accepts is NOT comparable to Tobago. The same can be said of the Netherland Antilles territories.</p> <p>An associated concern that TSTT would like to reference is differences between the conditions outlined for the determination of a sample in this document and the approved criteria outlined in the Costing Methodology⁵. As the Costing Methodology is an approved framework with precedence over the tactical approach proposed in this Study, the Study should not fall short of, or contradict, the criteria outlined in the approved and accepted policy framework.</p> <p>Similarly, the inclusion of jurisdictions in the Benchmark analysis which use costing or operational approaches which are diametrically opposite to the costing and operational principles in effect in Trinidad and Tobago should be avoided. Comparability would necessarily exclude inclusion in the sample data points based on policy inputs which are not aligned with our own. To that end, TSTT maintains the position that neither a jurisdiction with a hybrid RPP/CPP operational context nor a jurisdiction which does not use LRIC or LRAIC in its costing approach should be included in the benchmark.</p> <p>In this regard, TSTT remains unconvinced by TATT's responses to similar queries in the DoRs. That TATT in the latest version of the document maintains the primacy of "comparability" to the selection of the sample, reaffirms the position opposite to the explanations forwarded by TATT.</p>	<p>Similarly, jurisdictions that do not meet the criteria outlined in Section 3 should be excluded.</p> <p>Further, criteria included in the relevant section of the Costing Methodology should also be applied in the determination of the sample.</p> <p>TATT must exclude from the Benchmark Analysis jurisdictions that use operational mores which differ from Trinidad Tobago. Accordingly where hybrid RPP/CPP or MPP models are utilized those jurisdictions should be excluded from the Sample.</p>	<p>TSTT is correct to point out that the French NRA (ARCEP) established cost-based interconnection rates for the FWI jurisdictions. However, this does not provide a basis to exclude them from the study. There are several reasons they should be included.</p> <p>First, in setting cost-based interconnection rates, ARCEP took specific account of rate differentials between metropole France and other French territories (including FWI). ARCEP determined it would be appropriate for interconnection rates in all such areas converge over a 10-year period to similar rate levels.⁶</p> <p>Second, the current FWI rate levels have been in place for years and, therefore, they are well established in the market at this point in time.</p> <p>Third, current rates in effect in the FWI jurisdictions are very similar to the cost-based rates in place in Jamaica and the five ECTEL Member States (see the Updated 2021 Report). Consequently, in the Authority's view, removing the FWI jurisdictions from the benchmarking would be arbitrary and, moreover, would inappropriately and unnecessarily reduce the benchmarking sample.</p> <p>The Authority notes that TSTT also makes a similar comment regarding the Netherlands Antilles jurisdictions. This point is moot however since these jurisdictions were eliminated from the benchmarking sample because of "when" the regulatory decisions setting interconnection rates in these jurisdictions was made not because of "who" set the rates or "where" the rates were set. The Netherland Antilles jurisdictions failed the vintage criterion and, therefore, were excluded from the post-2012 sample (as discussed in the Revised 2019 Report).</p> <p>The Authority notes that it has already addressed the question of consistency of the Costing Methodology and the benchmarking exercise above as well as in its Round 1 DoRs (e.g., pages 26-29). To briefly repeat, under regulation 15(2) of the Interconnection regulations (quoted earlier), the Authority is only legally obligated to ensure that the benchmarks chosen "comport with internationally accepted standards for such benchmarks." It is not obligated to follow any other particular methodology.</p>

⁵ The Costing Methodology for the Telecommunications Sector, 7.2.1 Defining characteristic of T&T., d) Pertaining specifically to interconnection, See DORs pg. 90

⁶ See: <https://www.arcep.fr/la-regulation/grands-dossiers-thematiques-transverses/les-terminaisons-dappel.html>.

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				<p>In addition, as addressed in the Round 1 DoRs (pages 40-42), the Authority rejects the suggestion that jurisdictions with hybrid RPP/CPP interconnection regimes should be excluded from the benchmarking sample. Sample selection criterion 3(iii) specifically addresses this matter.⁷ The Authority continues to consider that jurisdictions with hybrid RPP/CPP regimes, where some or all interconnection rates are deemed to be reasonably comparable for benchmarking purposes, can and should be included in the benchmarking sample.⁸</p> <p>Lastly, the Authority also rejects TSTT's proposal to include only LRIC or LRAIC cost-based jurisdictions in the benchmarking sample. This issue is in the Round 1 DoRs (e.g., pages 63-65). The Authority notes that the majority of the jurisdictions included in the post-2012 sample are indeed cost-based (i.e., LRIC+ or Pure LRIC methodologies). The cost-based averages included as a lower bound for benchmarking purposes in the Revised 2019 Report are made up of these cost-based benchmarks. This issue is also further addressed below in response to CCTL's comments on Section 6.5 of the Revised 2019 Report.</p>
3.2 Full Benchmark Sample Jurisdictions	CCTL	We note that twenty-three countries met the criteria for the full sample. In refining the sample to be more consistent with the regulatory requirements to " <i>set interconnection rates with reference to such costing benchmarks, as determined by the Authority that comport with internationally accepted standards for such benchmarks,</i> " we note TATT's decision to not limit the sample to jurisdictions with cost based interconnection rates. We are of the considered view, that the sample should be limited to jurisdictions with cost based rates. We discuss this further in section 6.5 below.	<p>CCTL takes no issues with the full benchmarking sample selected based on the criteria established.</p> <p>Recommendations to further refine the sample such as excluding jurisdictions without cost based rates are addressed below.</p>	CCTL's comments are noted regarding the treatment of cost-based and non-cost-based benchmarking sample jurisdictions. They are addressed in the context of CCTL's comments on Section 6.5 of the Revised 2019 Report below.
3.3 Benchmark Sample Jurisdiction Groupings	CCTL	On the issue of grouping of jurisdictions in the sample, in our response to the first stage of this process, CCTL objected to the grouping of the French West Indian (FWI) territories Guadeloupe and Martinique as one observation and St. Martin and St. Bartholomew as one observation. Our objection is based on the fact that given the sample size, combining	TATT should treat the FWI islands as four rather than two observations. This would improve the accuracy and robustness of the cost benchmarks.	The Authority acknowledges CCTL's comments on the treatment of the FWI jurisdictions as two rather than four observations, and notes that they repeat CCTL's Round 1 Comments. Again, for the reasons provided in the Round 1 DoRs (e.g., pages 50-51 and 63-66), the Authority continues to be of the view that the treatment of the FWI as two rather than four observations is appropriate.

⁷ Sample Selection Criterion 3(iii) on Calling Party Pays (CPP) versus Receiving Party Pays (RPP) Regimes states that: "CPP and hybrid RPP/CPP regime jurisdictions are included in the benchmark sample, whereas "pure" RPP regimes are excluded. RPP and CPP regimes are conceptually different and, as a result, interconnection rates under these two regimes may not be comparable. Therefore, this criterion excludes jurisdictions in which pure RPP regimes are in effect but includes those jurisdictions that have hybrid RPP/CPP regimes, and where some or all interconnection rates in such cases are deemed to be reasonably comparable for benchmarking purposes."

⁸ Moreover, as demonstrated in the Revised 2019 Report (Appendix II, Sensitivity #5), the removal of the hybrid RPP/CPP regimes had no appreciable effect on the benchmarking study results in any event.

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		<p>observations, would impact the weighting of the samples and impact the outcome.</p> <p>In response, TATT conducted a sensitivity analysis for treating each of the four as individual observations rather than the two groupings. TATT's assessment from this analysis is that,</p> <p><i>“••• treating FWI as four rather than two observations. Doing so significantly affects the MTR and FTR cost-based post-2012 sub-samples, since they consist of six and four jurisdictions, respectively. Treating FWI as four rather than two observations has the effect of increasing the FWI weight from 33% to 50% for the FTR and from 50% to 67% for the MTR. The impact on all MTR and FTR post-2012 sub-samples is less pronounced, since these are larger in scale (i.e., nine jurisdictions in both cases).”</i></p> <p>Despite this outcome TATT has decided to maintain the recommended cost benchmarks from the first round of this proceeding.</p> <p>What is clear, is that the benchmark results based on treating the FWI as two rather than four observations would tend to bias the rates upwards, rather than downwards.</p> <p>With the objective of reducing interconnection costs in Trinidad and Tobago in line with cost trends, TATT should treat the FWI islands as four rather than two observations. This would improve the accuracy and robustness of the cost benchmarks.</p>		<p>As indicated in the Revised 2019 Report and the Round 1 DoRs, traditionally the NRA in FWI established separate interconnection rates for each operator in Guadeloupe, Martinique, St. Barts and St. Martin. These separate rates, however, have converged over time. The Authority continues to consider that including each of these four jurisdictions separately in the sample would place a disproportionate weight on the FWI jurisdictions in the benchmarking study.⁹</p> <p>With the recent ECTEL Member State interconnection rate decisions, all five ECTEL Member States are now included in the cost-based sub-sample in the Updated 2021 Report. This significantly increases the number of cost-based jurisdictions in the study. In the Authority's view, this should have a mitigating effect on CCTL's concern regarding the grouping of FWI jurisdictions. Nonetheless, the Authority considers that the present consolidation of the FWI jurisdictions into two groups remains appropriate.</p>
Section 4 Interconnection Service Rates				
4.1 Interconnection Data Compilation Process	CCTL	Over two years have passed since TATT conducted the data compilation process for the study. The sample being used ends at March 2017. Since this time there have been changes to the data collected for the sample. Notably, interconnection rates in five Caribbean islands (ECTEL countries) were reduced as of May 2018.	To improve the robustness of the cost benchmarks, we recommend that the data time series is updated to include more current observations such as the ECTEL rates changes in 2018.	As noted above, the Authority agrees with CCTL's position on the need to update the Revised 2019 Report to include more current interconnection rate data, which is why it has prepared the Updated 2021 Report.

⁹ As highlighted in the Revised 2019 Report, Appendix II, Sensitivity #4, the treating FWI as four rather than two observations did not have an appreciable effect on the benchmarking study results.

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		It is our considered view that the time series for the data compilation exercise should have been updated to reflect this more current information.		
Section 5 Full Sample Benchmarking Results				
Sections 5 and 6	TSTT	<p>TSTT notes that French overseas territories – extensions of France, governed by European Competition Law² - is included in the Benchmark Sample. The inclusion of FWI territories in the full (and final) samples jurisdiction further demonstrates TATT departing from the initial principles outlined in Section 3.1, which cannot and should not be accepted.</p> <p>It is noteworthy, that on review of figures 2 and 3, it can be readily seen the extremely low rates associated with Guadeloupe & Martinique and St. Martin & St. Barts when compared to other rates in the region. Indeed, the exclusion of these low rates from the sample would raise the average significantly. As such, the inclusion of these rates can be seen as included specifically to artificially drag the average down. This increases the risk of the average and the associated benchmark being below the actual cost of operations in comparable jurisdictions in the region.</p>	<p>The French West Indies should be removed from the MTR and FTR samples as these jurisdictions' rates do not reflect the "comparability" established as a primary consideration for inclusion in the benchmarks.</p> <p>TATT should rework the average of the samples for MTR and FTR excluding these inputs. This should ensure that TATT is not proposing a benchmark rate that is artificially lower than the cost of operations for services in the Caribbean.</p> <p>TATT should be mindful that a benchmark rate that is too low (i.e. below the actual cost of production of a service unit) would be a result that is in contravention of the Sections 3, 24, 25 and 29 of the Act, and suggest gross negligence on the part of the statutory regulator. This would open the regulator to legal jeopardy once its negligence in exposed.</p>	<p>The Authority acknowledges and appreciates TSTT's comments and directs TSTT to the Authority's response on Sections 3.1 and 3.2 of the Revised 2019 Report above.</p> <p>In addition to that response as articulated above, the Authority also notes that in this instance TSTT has suggested that the interconnection rates in the FWI jurisdictions are "extremely low" compared to other rates in the region and, seemingly because of this, they should be removed from the benchmarking sample.</p> <p>In response, firstly, the Authority notes that the mere fact that rates in one or more benchmark sample jurisdictions may appear low relative to others does not provide a basis to remove the jurisdiction from the sample. The same could then be said of high-rate jurisdictions as well. It would be no more appropriate to remove high-rate than low-rate jurisdictions for the mere fact that they may be outliers.</p> <p>Secondly, and more importantly, TSTT's assertion that the rates in the FWI are "extremely low" compared to other sample jurisdiction is incorrect. The rates in the two FWI jurisdictions are similar to those in Jamaica as well as more recently established rates in The Bahamas and the five ECTEL Member States (See Updated 2021 Report).</p>
Section 6 Domestic MTR and FTR Recommendations				
6.1 Benchmarking analysis Methodology	Digicel	<p>The Authority proposes to use a simple average of MTRs and FTRs in other jurisdictions to set a maximum rate for Trinidad and Tobago.</p> <p>For MTRs and FTRs which are above this average then if the Authority accepts that a MTR or FTR is valid and not an overestimate of costs in another comparable jurisdiction it would need to demonstrate why it considers that a price lower than this is the maximum cost of termination in Trinidad and Tobago. The fact that other jurisdictions in the sample have</p>	<p>The Authority should move away from using a simple average of international comparators to set a maximum price.</p> <p>Suggestions have been made in previous rounds of the consultation process as to how this might be achieved and Digicel would urge the Authority to reconsider these or</p>	<p>The Authority notes that this question effectively restates comments made in Digicel's Round 1 Comments on the use of benchmark sample averages that have already been addressed and rejected by the Authority in the Round 1 DoRs (e.g., pages 7-9 and 89-92).</p> <p>The Authority reminds Digicel that under regulation 15(2) of the Interconnection regulations (quoted earlier), the Authority is required to ensure that the benchmarks chosen "comport with internationally accepted standards for such benchmarks." This is precisely the approach followed in the benchmarking study.</p>

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		<p>set lower termination rates than the average gives no information as regards the level of cost in Trinidad and Tobago. The Authority cannot have it both ways. It cannot on the one hand say that another jurisdiction is sufficiently like Trinidad and Tobago to use its termination rate and then say that the cost of termination in Trinidad and Tobago must be lower than this simply because another jurisdiction has come up with a similar answer.</p> <p>It is improper for the Authority to impose a ceiling on termination rates in Trinidad and Tobago while at the same time accepting that higher rates in other jurisdictions are sufficiently akin to the circumstances pertaining in Trinidad and Tobago to be used as part of the benchmark sample. The Authority's approach is arbitrary and potentially ultra vires. The Authority cannot force a Concessionaire to sell below cost.</p>	provide detailed reasoning for its rejection of same.	<p>The benchmarking study is not based solely on a "simple average" of interconnection rates in selected comparator jurisdictions, as suggested by Digicel, but rather on a combination of factors including, interconnection rate levels and trends in the all-sample post-2012 average (as an upper bound for benchmarking) and cost-based benchmarking sub-samples (as a lower bound for benchmarking); international interconnection rate trends; and a normalisation analysis to assess whether any upward or downward demographic, socio-economic and other adjustment factors were necessary relative to the benchmarking sample averages.</p> <p>The benchmarking data and analysis has also been updated together with the preparation of these Round 2 DoRs, the results of which are provided in the Updated 2021 Report. The Authority remains confident that the recommended costing benchmarks resulting from the benchmarking study are above cost.</p> <p>As mentioned, the Authority has considered Digicel's previous suggestions on ways to modify the benchmarking study but rejected them since they were either inappropriate or inconsistent with internationally accepted standards for benchmark studies.</p>
6.1 Benchmarking Analysis Methodology	CCTL	<p>We note that between phase 1 and 2 of the process TATT has maintained its position on the key aspects of the construction of the sample for the benchmarking study. These issues include:</p> <ul style="list-style-type: none"> • The vintage of interconnection decisions in the benchmark sample jurisdictions; • Historical trends in benchmark sample interconnection rates; • Alternative benchmark sample averages considered; and • Glide path to recommended interconnection rates <p>Below we address these points in the sub sections below.</p>		The Authority addresses each of these issues in what follows.
6.1.1 Vintage of Interconnection Sample	CCTL	On the vintage of interconnection decisions, we agree with the study's decision to exclude pre-2012 decisions, resulting in the MTR sample reducing from seventeen to nine, and the FTR reducing to eight.	CCTL has no issues with the vintage of the sample.	The Authority acknowledges CCTL's support for this aspect of the benchmarking study.
6.1.2 Historical Trends in Benchmark Sample	CCTL	CCTL agrees with the downward trending of the historical data sample, as this is consistent with not only the trend in sample countries, but globally.	CCTL has no issues with the downward trending of the sample. However, we recommend that the adjustments set out in the	The Authority acknowledges CCTL's comments on interconnection rate trends in the region and globally, which is why it has prepared the Updated 2021 Report.

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		However, we would point out that benchmarking using historical data is inherently backward looking. In the context of setting interconnection rates based on forward looking cost principles, TATT should be mindful of the necessary adjustments to ensure the cost benchmarks are more accurate and robust. Such results would more closely align with this objective to get to cost based rates.	introduction are implemented. This will improve the accuracy and robustness of the benchmarks so that the results align more closely with the goal of establishing cost based rates.	The Authority agrees that updating the study improves the accuracy and robustness of the recommended costing benchmarks so that they do indeed align more closely with the goal of establishing cost-based interconnection rates.
6.1.3 Alternative Benchmark Sample Averages Considered	CCTL	CCTL notes the three alternative benchmark sample averages discussed under this section i.e. the post 2012, the cost based only post 2012 sample and the European sample. The impact of treating the four French West Indies (FWI) countries as a group of two rather than four separate observations is not included here. We refer TATT to section 3.3 of this response on this issue. In summary, the grouping of the four French West Indies countries into two observations has the effect of minimizing the impact of the individual observations on the result, and biases the benchmark rates upwards.	See recommendation in 3.3 above.	The Authority has addressed this issue above in response to CCTL's comments on Section 3.3 of the Revised 2019 Report. For the reasons noted there as well as in the Round 1 DoRs, the Authority is of the view that the grouping of the four FWI jurisdictions into two groups is appropriate.
6.1.4 Glide Path to Recommended Rates	CCTL	TATT gives two reasons for establishing a three-year glidepath, TATT indicates that this is common practice across jurisdictions, and that the glidepath is consistent with the projected rates trends. TATT provides no information to support its asserting that using a glidepath approach is common place. Further, this does not match with CCTL's knowledge of the approach used in other markets. As mentioned in our response to the previous round, other Caribbean regulators, some included in the sample countries used for this study used a different approach. After establishing LRIC rates for MTR in 2013, and FTR rates in 2018, the Jamaican regulator decided to move to the new rates in a single step. In the case of Cayman Islands and Barbados, the transition period following the establishment cost based rates was a 12-month glide path. CCTL sees no benefit to consumers or competition from postponing or delaying the implementation of costbased benchmark rates in Trinidad. The results of the study establish	The cost benchmarks should be implemented in one round, instead of the three-year glidepath approach.	The Authority agrees that a variety of approaches can be adopted when implementing newly established interconnection rates. In the Authority's view, the use of a glide-path approach is relatively common. For instance, in the three interconnection rate reviews undertaken in the Turks and Caicos Islands (TCI) over the last ten years, the newly established interconnection rates were phase-in over three-years in each case. ¹⁰ Similarly, the NRA in The Bahamas (URCA) also adopted a three-year phase-in period when it recently implemented new interconnection rates. ¹¹ Both of these interconnection rate reviews were based on benchmarking studies. As well, ECTEL also recently established a three-year phase-in period for its newly established cost-based interconnection rates in 2018. ¹²

¹⁰ See the TCI Telecommunications Commission's most recent 2020 interconnection rate review decision: <http://www.telecommission.tc/info--ID--481.html>.

¹¹ See URCA's 2019 interconnection rate review decision: <https://www.urcabahamas.bs/decisions/ecs-74-2019-wholesale-fixed-and-mobile-termination-rates-for-smp-licensees/>.

¹² See: https://www.ectel.int/wp-content/uploads/2018/09/PUBLIC_Determinaton_Interconnection_rates_2018-1.pdf.

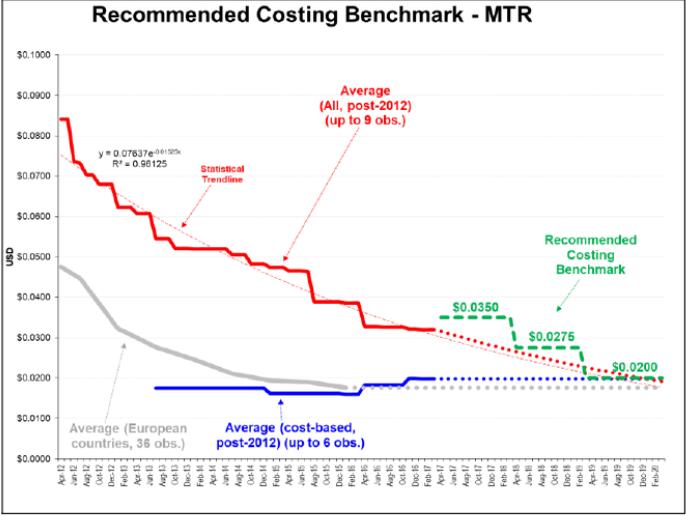
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		<p>that existing interconnection rates do not reflect current costs and are thus contrary to the Regulations.</p> <p>TATT should also take into consideration the fact that the model building exercise to establish cost based rates has been underway for over a decade now, with no usable outcome. The proceeding on the benchmark study started two years ago. Over that period interconnection rates have continued to trend downwards. For example, since then the FTR in Jamaica was reduced. In the Caribbean countries covered by the Eastern Caribbean Telecommunications Authority (ECTEL), rates were established and implemented starting in 2018.</p> <p>Given this lengthy record, operators should by now have the foresight to understand and anticipate the financial impact of lower rates. For these reasons CCTL considers that a 3-year glide path is excessive. The longer these rates remain in effect, the greater the harm. The cost benchmarks should be implemented in one round.</p>		
6.1.4 The Glide Path	TSTT	<p>Without returning to issues raised in the first round of this consultation about the appropriateness of the glidepath proposed in Section 6.1.4, TSTT would like to raise the concern that TATT has admitted its intentions to propose benchmark rates which are beneath the expected or modelled actual costs of the operators' networks. As intimated above, this is effectively an admission of negligence by TATT, if this were to be implemented as proposed.</p> <p>In Fig. 5, for FTR glide path and the proposed benchmark rates, TATT demonstrates that it is proposing rates which are below the glide path for projected costs of operators' networks. The green dotted line represents the step function decline in rates proposed, this is below the red dotted line of glide path for modelled costs. Accordingly, the area above the green line, but below the red (highlighted in yellow below by TSTT for ease of reference) reflects the actual losses per minute that TATT would be directing an operator to absorb for the duration of such a ruling.</p> <p>That area reflects, per minute economic value loss in the market caused by that predatory rate TATT would be illegally directing operators to implement if these benchmarks for FTR were adopted.</p>	<p>TATT must veer away from establishing rates that are below the expected or modelled cost of production of services in Trinidad and Tobago. Establishing such rates would be in contravention of the Act, but also be inimical to the overall well-being of the sector, making it unsustainable - a precursor to collapse due to regulatory failure.</p> <p>TATT would be breaching its statutory responsibility by recommending the application of rates that are effectively predatory in nature. While there may be short term gain, the long term consequences are so significant that the Act, and TATT's own policies, eschew such a practice as a feasible option for regulatory determination.</p> <p>TATT should reconsider establishing the benchmark rates to</p>	<p>The Authority acknowledges TSTT's comments, but it appears that TSTT has misinterpreted the benchmarking methodology as illustrated in both Figures 4 and 5 of the Revised 2019 Report (i.e., the Recommended Costing Benchmark MTR and FTR Figures, respectively). Each is replicated here for ease of reference.</p> 

Figure 4. MTR recommended costing benchmark

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		<p data-bbox="628 159 1276 584"> </p> <p data-bbox="701 605 1131 630">Figure 5. FTR recommended costing benchmark</p> <p data-bbox="620 670 1292 849">Even more concerning is the fact that these rates, which are effectively wholesale rates in the interconnection market are expected to be used by TATT in its retail price reviews. This will compromise sustainability of rates set by TATT in the interconnection, wholesale and retail markets in the all variations and submarkets fixed, mobile, international spheres.</p> <p data-bbox="620 881 1292 1092">TSTT would like to remind TATT that there is no provision in the Act, its Policy Frameworks, the Regulations or even ITU and WTO Guidelines which validates a position by a regulatory authority to require predatory rate setting in wholesale markets which can undermine the operation of a sustainable free market in all downstream and derivative sectors.</p> <p data-bbox="620 1125 1292 1247">The only way forward, assuming that the glide path is accepted, would be to ensure that the green line in the Fig 5 is at all times above the red dotted line of the projected cost of the network operations.</p> <p data-bbox="620 1279 1292 1482">Also, TSTT repeats its objections to the legitimacy of any model or benchmark analysis that proposes that the long term cost of provision of a telecommunications service in Trinidad and Tobago, or the Caribbean, is ever modelled or estimated to cost less than the long term average cost of provision in Europe with its higher population densities, consumption habits, consumption capacity and thus greater economies of</p>	<p data-bbox="1306 155 1704 240">that above the red line glide path of accepted average of rates pursuant to the benchmark process.</p> <p data-bbox="1306 272 1704 427">TATT should ensure that the benchmark rates are at all times above the linear regression estimates of projected costs of the network operations in T&T.</p> <p data-bbox="1306 459 1704 703">TATT must abandon using the European glide path experience to guide the terminal value that will be achieved by regional and local glide paths. TATT should recall that the differences in economies of scale would suggest that the terminal values cannot be equal.</p> <p data-bbox="1306 735 1704 946">TATT may consider modelling the shape of the glide path from extra regional experience, but cannot consider using absolute terminal values in these extra regional experiences as a medium to short term targets in Trinidad and Tobago.</p> <p data-bbox="1306 979 1704 1125">TATT must cease gaming the process through non-transparent cherry-picking of rates to be included in subset benchmark analyses.</p> <p data-bbox="1306 1157 1704 1312">The blue line in Fig 5. in the annexes should be removed as it does not seem to build upon the outcome of the Benchmark Analysis in Section 3 through 5 of the Study.</p>	<p data-bbox="1768 191 2475 719"> </p> <p data-bbox="1857 751 2386 776">Figure 5. FTR recommended costing benchmark</p> <p data-bbox="1714 816 2542 963">As explained in the Revised 2019 Report as well as in the Round 1 DoRs (e.g., 67-68), the cost-based post-2012 sub-samples provide a “lower-bound” costing benchmark (i.e., the blue line in the charts) and the post-2012 sub-samples provide an “upper-bound” costing benchmark (the redline in the charts).</p> <p data-bbox="1714 995 2542 1117">For both the MTRs and FTRs, the trend lines for these two sub-samples converge by the end-point target date of March 2020. The end points for the MTR and FTR recommended costing benchmarks are between the upper- and lower-bounds.</p> <p data-bbox="1714 1149 2542 1458">The objective of the glide-path is to move rates to the end point targets over a three-year period. In the case of the MTR (Figure 4), the glide-path sets rates above the upper-bound trend line in the first two years before hitting the end-point target in year three, which falls between the upper and lower bounds. This is purely a result of the adoption of an “equal” three-step glide-path approach. A front-end loaded glide-path, in contrast, would have been used to have the recommended MTR benchmark cost to consistently fall between the upper- and lower-bound trend lines; however, the Authority opted for an equal step glide-path approach instead. This approach was applied to both the MTR and FTR.</p>

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		<p>scale and purchasing power of customers would suggest that the terminal rates to which cost estimates would settle would be of an order of magnitude above the terminal rates used in Europe.</p> <p>Thus, TSTT again points out that using Europe's rates as the target for benchmark glide path also in contradiction to the stated condition of "comparability" established in Section 3 of the Study. Thus again, despite noble philosophical intent in the design of the process, TSTT has significant challenges with the implementation choices which undermine the philosophical intents outlines.</p> <p>As such, TSTT rejects as ludicrous any proposition that the blue line in the Fig 5 models any realistic representation of the costs of production of services in Small Island States (SIDS) such as Trinidad and Tobago. Indeed, on review of the Annexes where TATT seeks to explain the quizzical appearance of this alternative benchmarked trend, it should be noted that the lower the number of contributors to that basket, the lower the trend of that blue line.</p> <p>Conversely, the greater the number of contributors to the basket, higher the trend of that blue line. It then becomes apparent that TATT is non-transparently cherry-picking which rates it prefers to consider for determination of this alternative trend. This suggests that there is an intent to "rig" or "game" the data used with a view to achieving a biased outcome – probably of an extremely low termination rate.</p> <p>It is clear that, as less markets are considered and the blue line alternative trend falls, that the blue line is reflected of neither the average rates developed pursuant to the substantive benchmark study nor demonstrable of the trend of the majority of the region. In this context, in light of how the trend is, this trend is clearly the result of biased manipulations by TATT. As such, it cannot be considered as the determining factor in the determination of the glide path.</p>		<p>In the case of the FTR (Figure 5), as noted by TSTT, the three-year glide-path to the FTR end-point target rate fell consistently between the upper- and lower-bound trend lines as pointed out by TSTT. This is the intended outcome of the methodology.</p> <p>The Authority considers that this approach provides a robust basis for setting recommended costing benchmarks since both benchmarking sub-samples lead to similar results - i.e., similar target end-point cost levels by the end of the three-year glide-path period. This dual trend line approach also effectively provides a form of validation that reduces the probability of error – i.e., providing a rate recommendation that is "too high" (substantially above actual costs) versus "too low" (below costs). Contrary to TSTT's assertions, this approach does not result in recommended benchmark cost that is below cost.</p> <p>As well, TSTT appears to have also misjudged the purpose of the role of EU interconnection rates and rate trends in the study. They are included as evidence of global downward trends in interconnection cost/rates and also used as a sensitivity and cross-check on the benchmarking study results. The EU interconnection rates included in the Revised 2019 Report extended only to 2016. More recent data on EU interconnection rates published by BEREC shows that rates in the EU have continued to decline significantly and are now significantly below the levels shown in Figures 4 and 5 of the Revised 2019 Report. In this regard, see also the Authority's response to Digicel's comments on Section 3.1 of the Revised 2019 Report above.</p> <p>Lastly, it appears that it may not have been clear to TSTT why the cost-based post-2012 sub-sample historical trend lines (i.e., the blue lines in Figures 4 and 5) rise over time. They increased in a stepwise manner due to the addition of jurisdictions over time with newly established cost-based rates, not because costs in any specific jurisdiction increased. To the contrary, interconnection have consistently decreased over time, both regionally and globally. Therefore, to be conservative, the MTR and FTR cost-based post-2012 sub-sample trend lines were projected to March 2020 on a flat-line basis in both cases. The fact that EU projections are similar in Figures 4 and 5 is coincidence. Consequently, there is no justification for the removal of the cost-based post-2012 sub-sample projections as suggested by TSTT.</p> <p>The Authority otherwise rejects outright TSTT's assertions the results of the benchmarking study are in any way "rigged" or "gamed".</p>
6.1.5 Recommended costing benchmarks for Domestic MTR and FTR	CCTL	The recommended benchmarks are based on the post 2012 sample, and includes time series data to 2017. If you take for example the projected mobile termination rate (MTR), of		As noted above, the Authority agrees with CCTL's position on the need to update the Revised 2019 Report to include more current interconnection rate data, which is why it has prepared the Updated 2021 Report.

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		<p>US\$0.03 for 2017 (page 21 & section 6.1.4 of consultation document), and compare with the cost based post 2012 sample average of USD\$0.02 for the same year, there is a 33% difference between the two. TATT indicates that the two projections intersect at USD\$0.02 in 2020.</p> <p>We further note that in response to a question raised by Digicel, (s 6.1 DORs), in discussing the issue of whether to rely solely on cost based jurisdictions for benchmark samples, TATT indicates that,</p> <p><i>“ ... In such a case, the MTR and FTR recommendations would remain very similar, if not identical to those adopted by the Authority in the approach taken in the benchmarking exercise, since projected benchmark rates derived from the full and cost-based post-2012 sub-samples tend to converge by March 2012.”</i></p> <p>However, when one considers the following;</p> <ul style="list-style-type: none"> • The data series used ends at March 2017, • The timeframe for which rates are projected is through to 2020, • We are now in 2019, approaching 2020, <p>it is our considered view that in order to improve the accuracy, robustness and currency of the cost benchmarks, TATT should update the benchmarks by collecting data beyond 2017 and then prepare a three year projection from 2020-22. This would make the basis of the projections more current, as well as extend the timeframe beyond 2020.</p> <p>Also, the March 2012 convergence timeframe referenced in the quote above appears to be an error. From related TATT comments CCTL assumes this should be 2020, not 2012.</p>		<p>The Authority acknowledges that the March 2012 date noted in the quoted paragraph from the Round 1 DoRs should have indeed stated March 2020.</p>
6.3 Normalisation Analysis	CCTL	<p>In the first stage of this proceedings as well as in the DORs, TATT concedes that the results of the normalization analysis suggest that downward adjustments to the rates could be warranted. In the DORs TATT states,</p> <p><i>“The Authority considers that the normalisation analysis results and conclusions shown in the Revised Report not only support its recommended costing benchmarks but also</i></p>	Refer to recommendations in introduction.	<p>The Authority acknowledges CCTL's comments on the benchmarking study with regard to results of the normalisation analysis and related decision not to incorporate a downward adjustment to the cost benchmarks to reflect the results of that analysis. The benchmarking analysis balances a number of considerations, including relying on full post-2012 sample as an upper-bound and the cost-based post-2012 sub-sample as a lower-bound establishing the recommended costing benchmarks. While the accompanying normalisation analysis indicated that a downward adjustment to the recommended rates</p>

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		<p><i>support the view that they are conservative in nature, i.e., they could have been adjusted further downwards.”</i></p> <p>As such, TATT's own analysis supports CCTL's position that the benchmark rates be further reduced from what the study proposes.</p> <p>We note in particular that the analysis shows that jurisdictions that have cost based rates, interconnection rates tend to be lower, when compared to jurisdictions with non-cost based rates. This supports CCTL's position of excluding non-cost-based observations in order to align the rates more closely with the requirements of the regulatory framework.</p> <p>Since no normalization adjustment is proposed the Interconnection Rate Recommendations, made herein, are considered to be conservative in nature. A conservative outcome is beneficial only to the operator who is currently a net receiver of interconnect payments. This comes at the expense of consumers and competition.</p>		<p>would be justified in the event where one were applied, the magnitude of the adjustment on the end-point MTR and FTR recommended costing benchmarks would be minimal at best. For this reason, the Authority decided to take a cautious or “conservative” approach and did not apply a downward normalisation adjustment. In the Authority's view, this approach left additional margin to ensure that the recommended costing benchmarks are as close as possible to cost, but not below.</p>
Section 7 International MICC and FICC Recommendations				
International MICC and FICC Recommendations	CCTL	<p>Before addressing the benchmarks derived for mobile international carriage charge (MICC) and fixed international carriage charge (FICC), we consider necessary to explain our position in light of current market issues.</p> <p>On page 25 of document, Results of an Interconnection Benchmarking Study for the Telecommunications Sector of Trinidad and Tobago (March 2017), TATT explains that an international call termination could consist of various elements. It identifies these as the domestic call termination element, the international carriage element and a transit element.</p> <p>In Determination 2010/01 as well as succeeding determinations, which are based on sections 29 (3 and 4 of the Telecommunications Act, the Authority establishes pricing principles for rates charged by concessionaires for terminating international traffic on domestic network. These principles are based on cost. As such in cases where the MICC and or FICC are relevant, CCTL considers that it is necessary to establish</p>	<p>In the absence of an industry cost model, CCTL supports the use of the results of the benchmark study as a useful basis for setting interconnection rates, including MICC and FICC.</p>	<p>The Authority acknowledges CCTL's support for the use of a benchmarking approach to set recommended benchmark costs for the MICC and FICC as set out in the Revised 2019 Report.</p>

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		<p>cost for these elements. CCTL supports the cost benchmarking exercise for these secondary services.</p> <p>The current rates for incoming international to fixed and mobile in Trinidad and Tobago are not based on cost. It is therefore not surprising that the derived MICC and FICC are high in comparison to the sample countries.</p> <p>As TATT is aware, these rates are currently the subject of a dispute being considered under the "Procedures for the Resolution of Disputes in the Telecommunications and Broadcasting Sectors of Trinidad and Tobago (Revised), 2010."</p> <p>In general, CCTL considers that its views on the benchmarking of the primary services domestic fixed and domestic mobile termination rates are applicable to the MICC and FICC as well. That is, benchmark rates are based on backward looking rates, so will tend to be biased upwards, especially in the context of declining interconnection rates.</p> <p>In the absence of an industry cost model, CCTL supports the use of the results of the benchmark study as a useful starting point for setting cost based interconnection rates, including MICC and FICC.</p>		
Section 8 Potential Impacts of Recommended Costing Benchmarks				
8 Potential Impacts of Recommended Costing Benchmarks	Digicel	<p>Digicel disagrees with the Authority's conclusions as to the potential benefits of MTR reductions. This analysis is based on the assumption that there will be sufficient elasticity in retail call volumes to offset the revenue reductions from termination. However the Authority's analysis fails to take account of the structural decline in call revenues.</p> <p>The Authority's own annual report shows that mobile voice revenues as a percentage of overall sector revenues fell from 51.3% in 2013 to 36.9% in 2017 and that overall mobile revenues and ARPUs continue to fall into 2019.</p> <p>In previous consultations the Authority indicated that there was a 20% pass through from MTRs to retail prices and a Price Elasticity of Demand of less than 5. This means that at best the effect on overall revenues would be neutral.</p>	Digicel urges the Authority to re-evaluate the potential impacts of the recommended costing benchmarks.	<p>The Authority acknowledges Digicel's comments and reminds Digicel that the primary purpose of the benchmarking exercise is to comply with the objectives of the Telecommunications Act, which includes among other things, the directive that network interconnection rates be set on a cost-oriented basis. The evidence in the Revised 2019 Report demonstrates that interconnection rates in Trinidad and Tobago do not meet this requirement and are above cost, not just in the case of domestic call termination but also international call termination.</p> <p>Measuring the overall benefits of moving interconnections rates to cost-based rate levels (whether on flash-cut or phased-in basis) is a complex task. At the wholesale level, cost-based interconnection rates are required to ensure that interconnection arrangements between operators are efficient and support downstream competition. At the retail level, cost-based interconnection rates provide the basis for a range of potential benefits to end-users in the form of lower retail prices and, to the extent prices are lower than otherwise, greater take-up of mobile or fixed services, ceteris paribus.</p>

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		<p>Digicel believes that the pass through will be less than this as MTRs reduce. This and declining call volumes due to OTTs means that any retail price saving would be less than anticipated as network operators will have to maintain retail price levels to compensate for the overall volume reduction and the MTR reduction.</p> <p>Digicel notes that the Authority has not carried out any analysis of the impact of the use of an ICC benchmark.</p> <p>There are no benefits to Trinidad and Tobago consumers from the imposition of this benchmark. By definition these calls originate outside of Trinidad and Tobago and the retail charges are levied in other jurisdictions.</p> <p>For international calls from the AT&T US network Trinidad and Tobago, Barbados, Cayman Islands and Jamaica are all charged at the same retail rate. There is no empirical evidence that reductions in the ICC will result in corresponding reductions in retail rates by foreign operators.</p> <p>On the other hand reductions in the ICC would result in reductions in revenues for network operators. As the ICC revenues ultimately originate outside of the local economy this represents a net external contribution to network costs. Any reduction in this external contribution would have to be compensated from a revenue rebalancing to increase the contribution from within the local economy i.e. retail price increases in Trinidad and Tobago.</p>		<p>The Initial 2017 Report and Revised 2019 Report provide a wide range of evidence in support of the Authority's position on this matter, including supporting evidence based on Caribbean Region, European and other International experience (See Section 8, and Appendices II, III and IV of the Revised 2019 Report). The Authority considers this evidence supports its view that reducing interconnection rates to cost-based levels will indeed provide benefits to consumers.</p> <p>It is also pertinent to note that the Authority also disagrees with Digicel's unsubstantiated claim that no benefit to consumers would arise from moving international termination rates to cost-based levels. The Authority considers that reductions in ICC rates to cost-based levels should also, in principle, lead to reductions in international retail call prices. However, as noted in the Revised 2019 Report, the link between international interconnection rate reductions and retail international call prices is less direct compared to retail domestic call prices. Nevertheless, reducing these rates to the recommended costing benchmarks should lead to greater competition for international traffic carriage in and out of Trinidad and Tobago. This, in turn, should put downward pressure on inter-carrier settlement rates and, ultimately, downward pressure on retail international call prices, which would benefit consumers and, potentially, operators as a result of increased international call volumes. Artificially high international call rates, as seemingly proposed by Digicel, will simply lead to ever increasing degrees of IP-based bypass of the operators' telephony networks.</p> <p>The Authority also reminds Digicel that the Authority is far from the only NRA seeking to move interconnection rates to cost-based levels. It is a global trend. For instance, interconnection rates throughout the EU have been decreased dramatically over the last decade or more and, as the benchmark study shows, most regulators in the Caribbean Region have followed suit. Consequently, Digicel's unsubstantiated claim that there is no benefit from setting interconnection rates on a cost basis is contradicted by global experience.</p>
8.Potential Impacts of Recommended Costing Benchmarks	CCTL	<p>The current interconnection rates are not <i>"based on cost determined in accordance with such costing methodologies and models and formulae as the Authority may from time to time establish."</i></p> <p>The benchmark study establishes that <i>"... the domestic MTR and FTR as well as the MICC and FICC in Trinidad and Tobago are higher than the corresponding recommended costing benchmarks and, therefore, above cost."</i></p>	High interconnection rates are constraining competition in the voice market. As required by the Act, interconnection rates should move to cost based rates.	The Authority is in general agreement with CCTL's comments on the need to ensure that international interconnection rates and, more specifically, the MICC and FICC are reduced to cost-based levels.

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		<p>TATT indicates that in the absence of cost model the costing benchmarks will serve as reference points for setting interconnection rates. Further, that these cost benchmarks are "rates maxima, meaning that operators are free to set rates which are lower." With this guidance, CCTL considers that the cost benchmarks are a reasonable basis on which to set interconnection rates.</p> <p>A direct impact of these reduced rates will be lower off net call termination costs. The short-term impact on end user prices will depend on other market dynamics, some of which TATT highlights in the document, such as the extent to which lower interconnection charges are passed through to end users and the resultant impact on retail call volumes.</p> <p>With respect to the international incoming market, data provided in the Annual Market Report 2017 shows that 81% of domestic mobile to mobile traffic is on net, compared to 19% off net. The 2015 figures were 85% on net 15% off net. With respect to fixed to fixed traffic the 2017 report shows 91% of the traffic in on net compared to 9% off net. The figures for 2015 were the same.</p> <p>This significant imbalance in on net to off net traffic is indicative of high termination rates constraining inter operator competition. CCTL fully expects that lowering termination rates will serve to promote more robust competition, including increased flow through of reductions in termination rates to reductions in retail rates in the domestic market space.</p> <p>With respect to the level of competition in market for incoming international traffic TATT reports indicate that there is a lessening of competition. In 2015 the Hirschman-Herfindahl Index (HHI) was 2885. In 2017 the HHI moved to 5051. This suggests the level of market concentration increased by 75%.</p> <p>Based on TATT's own reporting, one can conclude that high interconnection rates are constraining competition in the voice market. As required by the Act interconnection rates should move to cost based rates.</p>		

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8.Potential Impacts of Recommended Costing Benchmarks	TSTT	<p>TSTT believes that the analysis outlined in Section 8.1 is inadequate as it ignores the risk of rates being too low, i.e. below the cost of production of the same wholesale service.</p> <p>Wholesale rates that are regulated and capped at below the cost of delivery can have a detrimental impact on the sustainability of the entire industry.</p> <p>Such a regulated position would deprive the operators from making returns on investment that validate the continued investment in new technologies, and can lead to market exit as the sector becomes internally unsustainable.</p> <p>This is not an argument to take lightly, as it is because of this unpalatable end position that the framers of the Act have expressly and without compromise sought to identify predatory pricing as something to be eliminated by TATT. For TATT to pursue a methodology that can lead to predatory pricing in the market is tantamount to regulatory failure of the highest order.</p> <p>That TATT has not done, or presented in this paper, any assessment of that risk is beyond negligent.</p>	<p>TATT should include a risk analysis, should the benchmarked rates that are implemented are below the actual cost of production identified by operators.</p> <p>TATT's analysis should consider more than the short term consideration of lower rates, to the longer term consideration of potential market failure due to non-sustainable operations which can be directly traced to regulatory over-reach, if not failure.</p> <p>TATT should be mindful of broader considerations than short term potential for reduction in retail costs. This guidance is more appropriate when the Objects of the Act in Section 3 provides guidance that TATT considers broader matters in relation to economic development (i.e. sustainability and attractiveness for investment) the achievement of which predatory rates at the wholesale markets would be inimical.</p>	<p>The Authority acknowledges TSTT's comments, but notes that it has previously addressed TSTT's claims that the recommended benchmark rates are below cost in response to its comments on the Executive Summary and Section 6.1.4 of the Revised 2019 Report above. As explained above as well as in the Revised 2019 Report, the benchmarking study has been developed in a manner that ensures that recommended benchmark rates are not below cost.</p> <p>The Authority also reminds TSTT that Section 8.3 of the Revised 2019 Report includes a risk assessment of the recommendations resulting from the benchmarking exercise. The focus of the risk assessment analysis was not "short term" in nature as suggested by TSTT, but rather takes into account short- and long-term considerations. Contrary to TSTT's view, as stated in the Revised 2019 Report. the Authority considers that:</p> <p><i>"There is a very high risk that not reducing the relevant interconnection rates that held in March 2017 to the recommended costing benchmarks will endorse existing network interconnection pricing inefficiencies, harm consumers through higher-than-necessary retail prices and distort market competition."</i> (emphasis added)</p>
8.2.2 Empirical evidence of price and usage benefits	Digicel	<p>The Authority's use of postpaid off net mobile rates to justify reductions in MTRs is highly misleading as in most of the Caribbean pre-pay is predominant service type. The use of an atypical segment of the retail customer base to extrapolate benefits for a different market segment which represents the majority of users is spurious at best.</p> <p>Digicel notes that the Authority relies on the potential impact that reduced MTRS have on also reducing on-net off-net pricing differentials. It is striking that Figure C3 clearly shows that for the majority of 14 markets used in the sample to justify this conclusion there is no on-net/off-net differential.</p> <p>In fact Figure C3 shows that where there is on-net/off-net pricing parity the MTRs range from US\$0.05 to US\$0.15.</p>	<p>The empirical evidence relied on by the Authority is incomplete and misleading and invalidates any conclusions which rely on it. The Authority should re-assess both the evidence and the conclusions.</p>	<p>The Authority acknowledges Digicel's comment and notes that this comment is effectively no different than Digicel's comment above on Section 8 of the Revised 2019 Report. The Authority's response to that comment applies in this case as well.</p> <p>Furthermore, Appendix III of the Revised 2019 Report provides evidence of the benefits of reducing interconnection rates to cost-based levels. That fact that it focusses on post-paid rather than pre-paid is of no consequence, since the point of the analysis to examine the impact of lower wholesale interconnection on retail prices. Moreover, this evidence provided in Appendix III was a part of a broader set of evidence included in the Revised 2019 Report to support the Authority's view that reducing interconnection</p>

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		<p>This is clear evidence that the Authority is overstating these benefits by a very wide margin.</p> <p>The Authority has also failed to point out that this potential benefit will not arise in Trinidad and Tobago as (for Digicel at least) there is no differential in retail pricing of on-net and off-net calls even at current MTR levels.</p>		<p>rate to cost-based levels would produce benefits for consumers.¹³ The Authority notes that Digicel offered no counter evidence to support its apparent opposite position that consumers would benefit more greatly in some way from interconnection rates being set above cost.</p>
Section 9 Conclusion				
Conclusions	CCTL	In order to promote robust and sustained competition in CCTL supports TATT's conclusion in the market, CCTL supports TATT's conclusion that the results of this cost benchmark results of this cost benchmark study be used as maximum rates for the various services.	CCTL supports TATT's conclusion that the results of this cost benchmark results of this cost benchmark study be used as maximum rates for the various services.	The Authority acknowledges CCTL's support for the conclusions and recommendations set out in the Revised 2019 Report.
Annexes				
Annex 1 – Chronology of LRAIC Model Implementation	TSTT	<p>Oversight resides with TATT in so far as the implementation of cost models for the industry. No operator can tie the hands of a regulator unless self-imposed due to failures of process by the regulator.</p> <p>TSTT reminds TATT that the costing methodology that TATT depends on was limited from the inception by TATT a time bound date of within 36 months post the adoption of the costing methodology. This timeframe has long since expired. This raises questions of the propriety of the Methodology where there has been significant changes in technology, service and market structure since it was first conceptualized.</p> <p>TSTT has on numerous occasions and multiple consultations requested TATT to amend the Costing Methodology due to pertinent factors. In its obstinance, the industry has not been afforded this benefit.</p> <p>By the very nature of the Costing Methodology the model focus was for three operators primarily.</p>	<p>TSTT seeks to correct the record on the matter of the chronology of the Model Implementation Process.</p> <p>TATT needs to fulfil its legal mandate to transparently complete the development of industry cost models.</p> <p>TATT needs to demonstrate to the industry its commit to its documented policies and framework.</p>	<p>The regulatory context for the model's development was clearly laid out in the <i>Costing Methodology for the Telecommunications Sector</i> (which was consulted upon over the period December 6, 2006 to May 29, 2008, hereinafter referred to as the Costing Methodology (2008)). The Costing Methodology (2008) included a comparative view of three approaches to measuring incremental costs: top-down, bottom-up and benchmarking. In consultation with the sector, a top-down LRAIC model was selected as the preferred type of model to be developed and used by the local industry.</p> <p>In said consultation, TSTT also put forward comments stating that it had no issue with the comparative strengths and weaknesses of the top-down and bottom-up approaches. The following strengths and weaknesses of the top-down approach were listed:</p> <p>Strengths:</p> <ul style="list-style-type: none"> • Based on actual costs • Accounts for cost minutiae • Strong audit trail <p>Weaknesses:</p> <ul style="list-style-type: none"> • Accounting for potential efficiency gains

¹³ In addition to Appendix III, Section 8 of the Revised 2019 Report included detailed assessments of the potential impact of the reductions in domestic MTR and FTR to cost-oriented levels on operators and consumer and Appendix IV provided several case studies on the correlation of retail and wholesale price levels.

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		<p>TSTT provided resources to facilitate the consultative process. TSTT provided resources to facilitate the model en camera review.</p> <p>TSTT provided resources to meet and discuss robust adjustment to progress the model.</p> <p>TSTT thus rejects the position that it was part of an orchestrated group producing a moving target. TATT seems to be nakedly making excuses with this litany of "problems" or "issues".</p> <p>Similar to the costing methodology the industry in 2019 responds to the second round of a document that was first provided in 2017. This time could have been used to fulfill the objective of the cost methodology for Trinidad and Tobago. Should one judge by the turnaround period of the review of this benchmark study document, i.e. 2 years that TATT seems to be operating true to its precedent form with respect to the production of four documents.</p> <p>TSTT reminds TATT that:</p> <p>a) The first data set was 2008 and not 2009 as alluded to.</p> <p>b) This simple process of data definition became a burden.</p> <p>c) TATT built a model and in hindsight requested operators for data. This became a point of concern for operators since the initial inputs of the model required two years of data. From this chronology it appears that a review has not been done to verify the initial year.</p> <p>d) Sharing a copy of the model was outwardly denied by TATT - IPR reasons put forward for non-provision of model. - TATT has refused to respond to minutes of meeting with TSTT on these and more salient matters. TSTT awaits this response since 2015.</p> <p>e) operators were given ultimatums, deadlines and threatened after which there is still no operational model</p>		<ul style="list-style-type: none"> • Requires substantial up-front investment • Data sources and data confidentiality <p>It was during the consultation on the costing methodology (over the years 2006 to 2008), before the development of the LRAIC model, that the industry became aware that confidential operator data would be needed to produce results from any top-down model to be developed.</p> <p>In recognition of the dependency on sensitive operator data for producing robust model results, the Authority made significant effort to ensure that all concerns expressed by the concessionaires were satisfactorily addressed, to ensure their continued cooperation in the LRAIC project.</p> <p>Thus, although TSTT has reminded the Authority that no operator can tie the hands of a regulator, the Authority, in fair and reasonable execution of its duties, did not in any way unilaterally make decisions on the model. The very nature of the top-down approach meant that operators' actual costs would be modelled (and accordingly a codependent data relationship would be formed with operators.) Thus, the Authority asserts that there have been no failures in its process but rather due diligence, patience and creativity in the face of challenges associated with a relationship between regulator and operator.</p> <p>The Authority would like to draw attention to the following:</p> <ol style="list-style-type: none"> i. In March 2010, LRAIC data requests were first issued to concessionaires and, over the period March 2010 to September 2011, through an iterative process, LRAIC data were provided by the concessionaires involved. ii. Seven concessionaires participated in the development of the model and six operators submitted data for their financial year 2009. iii. On September 9, 2011, the Authority wrote to all parties concerned, extending an invitation to a working session to present preliminary LRAIC outputs. CCTL, Digicel and TSTT (jointly referred to as the "coauthoring concessionaires") submitted a co-authored letter, dated September 23, 2011 (herein after referred to as the first co-authored letter), raising various concerns regarding the development of the model. iv. Acknowledging the issues raised, the Authority took several steps (listed in the chronology attached), to move the model along in a collaborative way. <p>In response to TSTT's specific claims, the Authority points out//iterates the following:</p>

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				<ul style="list-style-type: none"> <li data-bbox="1723 183 2537 423">i. The Authority's records do not corroborate TSTT's allegations of the use of ultimatums and threats. Furthermore, any claims of non-response by the Authority in response to substantive claims made by TSTT in 2015 are unsubstantiated. The Authority maintains that at all times, in the performance of its functions and exercise of its powers in relation to developing a cost model for the industry, it has acted in an objective, transparent and non-discriminatory manner towards all operators, including TSTT. <li data-bbox="1723 459 2537 699">ii. In several iterations of correspondence, the Authority kept TSTT updated on the IPR issue. To recap, the Authority confirmed in its letter dated April 16, 2013, on the matter of intellectual property, that TATT has ownership of the model. However, the Authority noted the subscription-only nature of the indices used in the CCA calculations. The matter had been previously addressed by the Authority in its letter of January 9, 2013 and restated in its letter dated March 27, 2013. <li data-bbox="1723 735 2537 1154">iii. Contrary to TSTT's claim of being denied a copy of the model, the Authority recounts that it did inform TSTT, by letter dated April 16, 2013, of its intention to complete a wider phase of "alpha testing". The Authority was desirous of proceeding with that testing by cross-checking for internal consistencies through various sensitivity analyses, and across multiple years of data. The Authority was, at that time, in contractual arrangements with Frontier Economics to execute the testing and other development works on the model. (It was noted that the model developed for Trinidad and Tobago was unlike models in other jurisdictions such as Jamaica and the UK, which may have been developed by operators or were hypothetical (bottom-up) in nature. The Authority expressly stated that the model was not yet at a "mature" enough state which would make wider access beneficial. <li data-bbox="1723 1190 2537 1461">iv. In moving forward on the matter, the Authority proposed to facilitate in-house working sessions on the model so that concessionaires could provide targeted feedback which would assist in finalising the model. (This had been made clear in the Authority's proposal in September 2011, which was extended to all concessionaires; whilst the joint concessionaires did not take up this opportunity with the Authority, other concessionaires in the market did). The Authority specified that concessionaires were invited to come into the Authority's offices, along with consultants and expert staff, if necessary, to work on their

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				<p>own model (with data), for which feedback would have been required. This controlled sharing of the modeling files would aid in the efficient maturation of the model for industry use.</p> <p>v. These access sessions were held, after which the Authority also gave operators take-away copies of a version of the model. It should be further noted that the Authority did not receive any data from operators with which to complete its testing and finalisation of the model. The Authority informed the operators there were data deficiencies in the initial model run, and made requests for the data from them, as the following chronology of events shows:</p> <p>vi. Acknowledging the concerns raised and noting the iterative nature of the model development process, the Authority dispatched a request for LRAIC and CCA data for the financial years 2010 and 2011 via letters to concessionaires dated October 23, 2012 (LRAIC data request). This letter notified concessionaires of the publication of the LRAIC modelling documentation.</p> <p>vii. The co-authoring concessionaires responded to the Authority's LRAIC data request via a letter dated December 13, 2012 (second co-authored letter). The essence of the second co-authored letter was a resubmission of the concerns raised in the first co-authored letter, as well as an implied refusal to submit the information requested in the LRAIC data request.</p> <p>viii. In anticipation of the resumption of the full participatory relationship in this LRAIC project, the Authority assured operators that the submission of the data would not prejudice the Authority in its addressing of fundamental concerns of the concessionaires. The Authority gave further assurance that the information to be provided by operators would not be shared with any other concessionaire nor would it be published or disclosed at any public forum.</p> <p>ix. The Authority noted that it had last received data from the concessionaires for the financial year ending 2009 and, as such, required same for the financial years 2011 and 2012 to avoid developing gaps in the data periods and in the interest of improving the quality of LRAIC results for all stakeholders, through trend and sensibility tests over time periods.</p> <p>x. Following the access sessions in 2014, the Authority, in 2015, continued to be denied the requisite data from the parties concerned,</p>

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				<p>in order to be able to proceed with beta testing, even though all issues raised during the alpha testing stage had been addressed. For example, one party refused to conclude alpha testing and provide any data until a version of the model that was acceptable to all concessionaires had been produced. Said operator also refused to conclude alpha testing until other steps identified in the collaborative process, such as consultation on the costing documents, were concluded.</p> <p>Consequently, unable to receive operator data to move on to beta testing, as identified in the collaborative framework, the Authority held public consultations in 2015 on the LRAIC and CCA reference papers and sought technical assistance from the model builders. The final documents incorporated amendments and additions based on stakeholder comments received during the consultation process and were published on May 31, 2016.</p> <p>A summary of the comments are as follows:</p> <p>General objections to the model:</p> <ul style="list-style-type: none"> a) Objection to applicability of the cost model to all operators b) Objections to the regulatory use of the model c) Requesting to consult on the costing methodology, i.e., abort this consultation d) Objection to frequency in model update e) Objection to consultation: Request that TATT finalise Authorisation Framework before issuing what were described as “related documents”. f) Claims that the model was not technology neutral <p>xi. Specific questions on the model:</p> <ul style="list-style-type: none"> a) Treatment of impaired assets b) Requests for further consultation on CCA price indices c) Requests for a clear differentiation on split between core and access d) Requests for rationalisation of applicable CVRs, including those for CATV networks e) Specific requests for accuracy checks of model arising from alpha review <p>xii. The specific questions on the model were answered in full and the revised papers included:</p>

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				<ul style="list-style-type: none"> a) Full details on CCA price revaluation indices and revaluation approach, including impaired assets b) Status of Accounting Separation Regulations c) Clarification on the introduction of new cost categories including core and access d) Updates to the application of principles of thinning and scorched node e) Clarification on applicable CVRs, including an example of conversion factor calculation steps for CATV networks f) Specification on the treatment of components of costs for capital equipment. <p>In 2016, the Authority also issued a request for proposals (RFP) for consultancy services to develop an interconnection benchmarking report for Trinidad and Tobago. In said RFP, the Authority highlighted the activities it had undertaken to advance the LRAIC project, which included, <i>inter alia</i>, meetings with operators; determinations on the method and timeline of alpha and beta testing of the model; the preparation of guidance notes for improving model results and data submissions. The Authority also indicated that alpha testing and further consultation on costing documents had been done.</p> <p>However, due to continued objections, the Authority has not received any relevant cost data (for the period 2009 to 2016) from operators to test and produce more relevant outputs of the model. In light of the imminent deadline for the renewal of the local interconnection agreements between operators, it was necessary for the Authority to act within its mandate to develop alternatives to guide the sector, particularly for the other four operators seeking interconnection. This decision was a timely intervention, which was borne out by the subsequent interconnection disputes filed by two concessionaires.</p> <p>For clarity, the purpose of regulation 15, which is found within Part III of the Regulations titled Negotiating Interconnection Agreements, is to determine the interconnection rates during the interconnection agreement process. Accordingly, the “reasonable time” referred to in regulation 15(2) must take into account the timeframe for which negotiations of these rates will take place.</p> <p>Regardless of the above, the Authority is still committed to developing and implementing a robust cost model for adoption by local industry.</p>