
Office of Utilities Regulation

Cost Model for Mobile Termination Rates

Second Consultation Document



OFFICE OF UTILITIES REGULATION

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Abstract

This Consultation Document has been prepared against the background of amendments to the Telecommunications Act (the “Act”). This document outlines the amendments to the Act which are relevant to the consultation and analyses its impact relative to the proposals made in the First consultation document. Of note, the legislation now stipulates that the wholesale mobile termination rate (“MTR”) should be calculated taking into account only the avoidable cost of providing the service. This is a fundamental shift from the previous condition that the MTR should be between stand alone cost and total long run incremental cost.

Comments from Interested Parties

Persons who wish to express opinions on this Consultation Document are invited to submit their comments in writing to the OUR. Responses to this document should be delivered or sent by post, fax or e-mail to:-

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36 Trafalgar Road,
Kingston 10
Fax: (876) 929-3635
E-mail: rswaby@our.org.jm

Responses are requested by June 29, 2012.

Any confidential information should be submitted separately and clearly identified as such. In the interest of promoting transparent debate, respondents are requested to limit as far as possible the use of confidentiality markings. Respondents are encouraged to supply their responses in electronic form, so that they can be posted on the OUR's Website (www.our.org.jm).

Comments on responses

The OUR's intention in issuing this Consultation Document is to stimulate public debate. The responses to this Document are a vital part of that public debate, and so as far as possible, should also be publicly available. The OUR considers that respondents should have an opportunity both to examine the evidence and views put forward in other responses, with which they may disagree, and to comment on them. The comments may take the form of, correcting a factual error, putting forward counterarguments and/or providing data relating to cost, traffic, revenues, etc.

Comments on responses are requested by July 6, 2012.

Arrangements for viewing responses

To allow all responses and comments to be publicly available, in addition to posting these responses and comments on its website, the OUR will keep copies of the responses and comments that it receives on files in the OUR's Information Centre. These can be viewed and copied for visitors to the OUR's Offices. Individuals who wish to view the responses and comments should make an appointment by contacting Kishana Munroe (Public Affairs/Information Officer) by one of the following means:-

Telephone: (876) 968 6053 (or 6057)
Fax: (876) 929 3635
E-mail: kmunroe@our.org.jm

At the pre-arranged time the individual should visit the OUR's offices at:

3rd Floor, PCJ Resource Centre,
36 Trafalgar Road,
Kingston 10

The individual will be able to receive photocopies of selected responses and/or comments on responses at a price which reflects the cost to the OUR.

Timetable

The timetable for the consultation is summarized in the table below:-

Summary of the timetable for public consultation

<i>Event</i>	<i>Date</i>
Deadline to Receive Responses to Consultative Document	By June 29, 2012
Deadline to Receive Comments on Responses	By July 6, 2012
Publish Determination Notice	By July 20, 2012

Chapter 1: Legal and Regulatory Framework

1.1 As part of its overall functions, the Office of Utilities Regulation (“OUR”) regulates specified services and facilities pursuant to section 4(1) of the Telecommunications Act (“the Act”). In keeping with its express power to determine the rates which may be charged in respect of the provision of a prescribed utility service pursuant to section 4(4) of the Office of Utilities Regulation Act (“the OUR Act”), the OUR is authorised to determine the prices charged by telecommunications operators for the provision of interconnection services. The applicable provisions in respect of each are as follows:

Section 4(1)(a) of the Act provides:

“(1) The Office shall regulate telecommunications in accordance with this Act and for that purpose the Office shall -

(a) regulate specified services and facilities; ...”

Section 4(4) of the OUR Act provides:

“(4) The Office shall have power to determine, in accordance with the provisions of this Act, the rates or fares which may be charged in respect of the provisions of a prescribed utility service.”

1.2 A “specified service” is defined in section 2 of the Act to mean, “a telecommunications service or such other service as may be prescribed”. A “prescribed utility service” is defined in section 2 and the First Schedule of the OUR Act to mean “a utility service specified in the First Schedule” which Schedule states it to include “the provision of telecommunication services”.

1.3 Several provisions of the Act were amended by the Telecommunications (Amendment) Act, 2012 (the “Amendment Act”), which came into force on May 24, 2012.

1.4 The legal framework governing interconnection, which is a type of telecommunications service, is set out in sections 27 – 37 inclusive, of the Act as amended. Section 29 of the Act, as amended, requires each carrier to permit to other carriers interconnection to its public network. Subsection (1) of that section states:

“Each carrier shall, upon request in accordance with this Part, permit interconnection of its public network with the public network of any other carrier for the provisions of telecommunications services”.

1.5 The OUR is empowered under the Act, as amended, to make a determination as to the charges for call termination services included in these interconnection arrangements. Sections 29 (4), (5), (6) and (7) of the Act, as amended, provide in part respectively:

“(4) *The Office may -*

(a) on its own initiative, in assessing an interconnection agreement, make a determination of the terms and conditions, including charges;

...

(5) When making a determination of an operator’s interconnection charges, the Office shall have regard to

(a) the principles of cost orientation or reciprocity;

(b) local or international benchmarks; or

(c) any other approach that is relevant to the determination of interconnection charges.

(6) Any determination of the Office made pursuant to subsection (4) shall be binding on the operator.

(7) For the purposes of subsections (4) and (5)-

...

“reciprocity” means basing a carrier’s interconnection charges on the interconnection charges of another carrier”

1.6 The Act grants specific powers to the OUR to assess and approve the terms and conditions of interconnection, including charges, offered by a public telecommunications carrier which is determined by the Office to be dominant. These terms and conditions are required under the Act to be embodied in a reference interconnection offer (RIO). Some of the relevant sections of the Act, as amended are extracted and set out below:

Section 28

“28 - (1) Subject to subsection (2), the Office shall determine which public telecommunications carriers are to be classified as dominant public telecommunications carriers for the purposes of this Act.”

Section 32

“32 - (1) Every dominant carrier shall, and any other carrier may, lodge with the Office a proposed reference interconnection offer setting out the terms and conditions upon which other carriers may interconnect with the public network of that dominant or other carrier for the provision of telecommunications services.

“(2) Each dominant public telecommunications carrier who is required under this Part to provide interconnection in relation to telecommunications services shall submit a reference interconnection offer to the Office -

(a) within ninety days after the date of determination of dominance pursuant to section 28;

....

“(3) A reference interconnection offer shall contain such particulars as may be specified by the Office and shall remain in force for a period not exceeding five years or such shorter period as the Office considers necessary having regard to technological and market developments;

“(4) A reference interconnection offer or any part thereof shall take effect upon approval by the Office and all existing interconnection agreements executed by the filing carrier shall be amended in accordance with the approved reference interconnection offer and until actually amended are deemed to be so amended.”

1.7 Sections 30(1)(a) and 33 of the Act, as amended, further stipulate the principles upon which interconnection charges should be based. These sections state as follows:

“30. – (1) Without prejudice to section 29, dominant public telecommunications carrier shall provide interconnection in relation to a public network in accordance with the following principles –

(a) the terms and conditions under which it is provided shall be

-

- (i) on a non-discriminatory basis*
- (ii) reasonable and transparent, including such terms and conditions as relate to technical specifications and the number and location of points of interconnection; and*

(iii) *charges shall be cost oriented and guided by the principles specified in section 33;”*

“33. - (1) *Where the Office is required to determine the charges for the provision of interconnection by a dominant carrier, it shall, in making that determination, be guided by the following principles –*

(a) *costs shall be borne by the carrier whose activities cause those costs to be incurred;*

(b) *non-recurring costs shall be recovered through non-recurring charges and recurring costs shall be recovered through recurring charges;*

(c) *costs that do not vary with usage shall be recovered through flat charges and costs that vary with usage shall be recovered through charges that are based on usage;*

(d) *costs shall include attributable operating expenditure and depreciation and an amount estimated to achieve a reasonable rate of return;*

(e) *with the exception of interconnection charges for wholesale termination services, interconnection charges shall be established between the total long run incremental cost of providing the service and the stand alone cost of providing the service, so, however, that the prices shall be so calculated as to avoid placing a disproportionate burden of recovery of common costs on interconnection services;*

(f) *where appropriate, interconnection costs shall include provision for a supplementary charge, being a contribution towards the access deficit of the interconnection provider; and*

(g) *in the case of charges for wholesale termination services, charges shall be calculated on the basis of a forward looking long run incremental cost, whereby the relevant increment is the wholesale termination service and which includes only avoidable costs.*

(2) *Where the Office has been unable to obtain cost information that it is reasonably satisfied is relevant and reliable, it may take into account*

local and international benchmarks, reciprocity and any other approach that in the opinion of the Office is relevant.

(3) *In this section -*

(a) *“access deficit” means the amount by which a carrier’s revenue from connection and line rental charges falls short of the cost of providing access lines due to regulatory constraints on those charges;*

(b) *“avoidable costs” means the difference between –*

(i) *the identified total long run costs of a carrier providing its full range of telecommunications services; and*

(ii) *the identified total long run costs of the carrier providing its full range of telecommunications services, except for the wholesale termination service supplied to any third party (which costs exclude non-traffic-related costs).”*

1.8 The OUR is obliged to apply the principles stipulated in the Act, as amended, in determining the charges for interconnection.

Chapter 2: Introduction

- 2.1 The OUR issued a Consultation Document titled ‘Cost Model for Mobile Termination’ Document No: TEL2012001_CON001 on February 21, 2012 (hereafter referred to as “*First Consultation Document*”). The First Consultation Document had set out the OUR’s proposals regarding the principles and methodology which should guide the development of the long run incremental cost (LRIC) model which is to be used to determine cost based mobile termination rates (MTR).
- 2.2 One of the primary principles which were discussed in the First Consultation Document was the type of cost standard to be used in the modelling process. In this regard, it was indicated that “*the main issue concerns which costs should be recovered by wholesale mobile call termination rates and the way in which common or shared costs are treated*”. Three different approaches to cost orientation were discussed:
- i. **Stand Alone Costs (SAC)**, where the service is the only service provided. This means that all the common costs are included and attributed to that service whose cost is being calculated.
 - ii. **Total Long Run Incremental Costs (TLRIC)**, where the common costs are shared on an equitable basis between all the services that are provided.
 - iii. **Pure Long Run Incremental Costs (pure LRIC)**, where only the incremental costs of the service are included and all or almost all of the common costs are excluded. This is the approach followed by the European Commission.

Purpose of Document

- 2.3 This document seeks to highlight the amendments made to the Telecommunications Act, which are relevant to the process of determining the cost of mobile termination. The issues surrounding the pure LRIC cost approach were discussed extensively in the First Consultation Document. At the time, the discussion would only have been for theoretical edification as its application was not allowed under the legislation. The recent amendments to the Act now require the application of the pure LRIC approach in the determination of interconnection charges. This consultation therefore gives stakeholders another opportunity to consider and respond to the points raised in connection with this approach.
- 2.4 In drafting the First Consultation Document, the OUR was guided by the provisions of section 33 (1) of the Act, which at the time stated in part:

“33 - (1) Where the Office is required to determine the prices at which interconnection is to be provided by a dominant carrier, it shall, in making that determination, be guided by the following principles -

(a) costs shall be borne by the carrier whose activities cause those costs to be incurred;

(b) non-recurring costs shall be recovered through non-recurring charges and recurring costs shall be recovered through recurring charges;

(c) costs that do not vary with usage shall be recovered through flat charges and costs that vary with usage shall be recovered through charges that are based on usage;

(d) costs shall include attributable operating expenditure and depreciation and an amount estimated to achieve a reasonable rate of return;

(e) prices for interconnection shall be established between the total long run incremental cost of providing the service and the stand alone cost of providing the service, so, however, that the prices shall be so calculated as to avoid placing a disproportionate burden of recovery of common costs on interconnection services.”
...;

- 2.5 As a result of Section 33 (1)(e), the OUR had proposed to establish a MTR using the TLRIC approach as this would ensure that a disproportionate burden of recovery of common cost is not placed on interconnection services. The OUR also explained that it was *“of the view that it is relevant to consider the competition issues created by high mobile termination rates in Jamaica, especially in the context of high market share asymmetries between operators.”*
- 2.6 On May 24, 2012, subsequent to the issuing of the First Consultation Document, the Telecommunications Act was amended. The passing of the Amendment Act, 2012 (the “amended Act”) has necessitated changes to of the some proposals made by the OUR in the First Consultation Document. In particular, Sections 33 (1) (g) and 33 (3) (b) of the Act, as amended, state that:

“33. - (1) Where the Office is required to determine the charges for the provision of interconnection by a dominant carrier, it shall, in making that determination, be guided by the following principles –

...

(g) *in the case of charges for wholesale termination services, charges shall be calculated on the basis of a forward looking long run incremental cost, whereby the relevant increment is the wholesale termination service and which includes only avoidable costs.*

...

(3) *In this section -*

....

- (b) *“avoidable costs” means the difference between –*
- (i) *the identified total long run costs of a carrier providing its full range of telecommunications services; and*
 - (ii) *the identified total long run costs of the carrier providing its full range of telecommunications services, except for the wholesale termination service supplied to any third party (which costs exclude non-traffic related costs).”*

2.7 It is therefore evident that the Act, as amended, now mandates that wholesale MTRs be calculated on the *“basis of a forward looking long run incremental cost, whereby the relevant increment is the wholesale termination service and which includes only avoidable costs.”* This costing approach is what is commonly referred to as pure LRIC.

Chapter 3: Pure LRIC

- 3.1 The pure LRIC approach considers the increment to be the traffic created by a single service (e.g. wholesale voice call termination). As a consequence, the associated incremental cost is the cost avoided when service A is not produced. This cost is the difference between the total cost for producing all services and the total cost of producing all services with the exception of service A. Under this approach, service A benefits to a great extent from economies of scale as neither network joint/common costs nor corporate overheads are taken into account in so far as they are not incremental to the service increment considered. In other words, if all services were priced based on a pure LRIC approach, network common costs and corporate overheads would not be recovered. As a consequence, these common costs would have to be allocated to services other than those being priced using a pure LRIC approach.
- 3.2 From a practical point of view, a Bottom-Up cost model can produce cost estimates in accordance with all three approaches: SAC, TLRIC and pure LRIC, which is much more difficult or impossible with a Top-Down model.
- 3.3 This move to the pure LRIC originated in Europe where it was observed that high mobile termination rates could create significant competition issues. For example, in mobile markets, high mobile termination rates may prevent small operators from proposing retail offers that are comparable to larger operators which terminate the majority of their calls on-net.
- 3.4 In the Explanatory Note that accompanied the European Recommendation, the European Commission explained that mobile termination rates based on pure LRIC would avoid cross-subsidisation between operators and customers:

"When deciding on the correct level of the regulated wholesale termination rate, it is essential to ensure that the methodology adopted promotes efficient production and consumption decisions and minimises any artificial transfers and distortions between competitors and consumers. Therefore, regulators should construct models which set wholesale termination charges as close to incremental cost as possible. The closer the termination price of all operators is to the incremental cost, the more likely it is that this will lead to the most efficient and least distortionary use of call termination services, and minimise the risk of problems such as cross-subsidisation between operators and customers and inefficient pricing and investment behaviour. Therefore, it is justified to apply a pure LRIC approach where the relevant increment is the wholesale call termination service and which includes only those costs that would not be incurred if that service were no longer produced (i.e.

avoidable costs). A pure LRIC approach, while recognising the essential objective of short-run marginal cost pricing, also recognises that cost structures in network industries tend to be characterised by substantial fixed costs and (by assuming that all costs become variable over the long run) provides for the recovery of service-specific fixed costs and variable costs which are incremental to providing the service over the longer term." (p16-17)

3.5 The European Commission also warned that:

"High termination charges may be used to foreclose a new entrant network, where a large proportion of originated calls are off-net. High termination rates may also facilitate collusive behaviour between two or more terminating operators." (p6)

"Late entrants argue that due to large traffic imbalances and on-net/off-net price differentiation they cannot compete effectively at the retail level. A large proportion of calls originated on late entrant networks are terminated on other networks, i.e. offnet. If new entrants pay a regulated termination charge in excess of actual costs they effectively give a transfer to the large network. As a result, their ability to offer retail rates comparable to the retail rates of an established operator, which terminates a majority of its calls on-net, is impeded." (p7)

3.6 The Body of European Regulators for Electronic Communications (BEREC) in a recent opinion¹ indicated that:

"There is an objective reason to recover common costs on retail markets rather than on the wholesale termination markets. By taking into account pure incremental costs when determining termination rates operators are being encouraged to recover their common costs on retail markets (on which there is a price constraint)² and not on a monopolistic market (on which there is a risk of excessive prices). Moreover, operators have a disincentive to lower their off-net call prices because by so doing they generate more outbound traffic which attracts outpayments to rivals. If termination rates decrease, the cost of terminating calls decreases for each operator and retail price competition increases as operators have stronger incentives to reduce their call charges. Lower termination rates would increase competition in call charges, so pure BULRIC delivering lower termination rates should be preferred in general to plus BULRIC.

¹ Source: http://erg.eu.int/doc/2012/bor12_23.pdf

² This should not be taken to mean that the OUR is accepting that all operators are subject to an effect price constraint at the retail level as this may or may not be the case.

Pure BULRIC is therefore generally more appropriate to promote competition and to ensure that users derive maximum benefit in term of price...”

3.7 In Jamaica, we have seen where high above cost MTRs³ have resulted in a large spread between on-net and off-net rates. In situations where this difference becomes significant, consumers attempt to counter the reduction in consumer surplus from making an off-net call by purchasing multiple handsets. Because the termination rate sets a floor on possible retail price of a cross network call, having termination rates that are higher than cost have resulted in a transfer of welfare from consumers to the terminating operator. Table 1 shows that the off-net mobile to mobile rates range from 42% – 50% above on-net rates. Digicel’s pre-January 2012 off-net peak prepaid rate was 77% above the on-net rate with the reduction coming as part of the approval of its merger with Claro⁴.

Table 1: Mobile to Mobile Peak Retail Pre-paid Tariffs

	Digicel	LIME	Difference between Off Net and On-Net rates
Digicel	10	14.2	42%
LIME	12	8	50%

3.8 Having MTRs that are higher than the cost of providing the service allows operators to price other services, typically on-net services, below cost. This cross subsidisation between networks benefits the operator with the larger market share who tends to be a net receiver of calls. Even in cases where termination rates are high and reciprocal between two networks, the smaller network ends up paying a transfer to the bigger operator. This affects the ability of the smaller operator to compete as they will either have to carry the loss or increase the price of some other service in order to recoup the lost revenue. The above cost MTR allows the larger network to maintain a high market share by using the windfall profits from termination to offer large on-net discounts. This provides an incentive for customers to gravitate towards the network with the larger market share to benefit from the cheaper price of making an on-net call relative to the cross-network charge they would face if they were a subscriber on the smaller network. This may be especially problematic for potential entrants as they would find it difficult to gain market share.

³ On June 4, 2012, the Office published its Mobile Termination Rate Determination Notice. The analysis in that document demonstrated that the MTRs that were being charged between some operators were high and above cost.

⁴ It should be noted that Digicel has recently introduced an option for its prepaid subscribers that allows them to pay the same rate for on-net and off-net calls.

- 3.9 As a consequence, the theory and the observations are converging towards a need for cost oriented termination rates, which will address one of the causes of high on-net/off-net price differences and the related potential anti-competitive consequences. It is against this background that many European countries have started to implement pure LRIC rates.

Common Costs

- 3.10 The First section of Chapter 5 of the First Consultation Document proposed the use of the required capacity approach as the method of allocating common costs between the different service types of voice, short messaging service (SMS), and internet access as well as the use of busy hour traffic volumes to allocate costs between different call types. The OUR also proposed to allocate overhead costs using equal proportionate mark-up, a choice generally adopted by regulators.
- 3.11 However, with the move to pure LRIC, there is no longer any need to choose between these methods of allocating common costs. This is due to the fact that with the pure LRIC approach, the calculated MTR only considers avoidable costs with all common costs being allocated to other services.

Chapter 4: Glide Path

- 4.1 In the First Consultation Document, the OUR had indicated that it was not in favour of using a glide path to reduce rates if the calculated MTR was less than that currently being charged by operators. This was due primarily to the fact that keeping rates above cost oriented levels has negative competition effects for smaller mobile operators and fixed networks.
- 4.2 With the move to a pure LRIC approach to setting wholesale interconnection rates, the calculated MTR could be significantly lower than TLRIC rates and the MTRs which are currently being charged by operators. Table 2 compares the former TLRIC and the pure LRIC rates for four countries with different populations. The table shows that countries which have used the pure LRIC approach to calculate the wholesale mobile interconnection rate have experienced a significant decline in the MTR relative to what would have obtained under the TLRIC approach.

Table 2: Comparison of TLRIC and the Pure LRIC rates

Country	Population	TLRIC rate (before new approach) Eurocents/min	Pure LRIC rate (2013 onwards) Eurocents/min
France	66m	5.8	0.8
UK	62m	4.2	0.7
Belgium	11m	7.2-11.4	1.08
Netherlands	16m	7.3	1.2

- 4.3 If the current MTR in Jamaica is above the TLRIC rate estimated by the model then that means operators would have already reaped significant benefit from having a MTR which is above cost. In this case, the OUR proposes to immediately adjust the MTR to its TLRIC level. However, given that the amended Telecommunications Act stipulates that the MTR is to be calculated using only avoidable cost the OUR will allow a glide path from TLRIC rate to the pure LRIC rate. The length of this glide path cannot be determined at this point as it will depend on the size of the difference between the TLRIC and pure LRIC MTRs. The OUR is however mindful that the glide path needs to be reasonably short to curtail the negative effects of having a MTR above cost. As such, the OUR will decide on the exact length of the glide path after the model is developed and the MTR is calculated. However, the maximum time period that will be considered for rates to adjust to cost is three (3) years.

Question 1

Do you agree with the proposal to implement a glide path for adjusting rates from the TLRIC MTR to the pure LRIC MTR? Please provide reasons for your response.