COMMUNICATIONS REGULATORY REFORM:

PUBLIC CONSULTATION ON RETAIL PRICING REGULATION IN THE COMMUNICATIONS SECTOR ('RETAIL PRICING REGULATION CONSULTATION')

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FOREWORD

The Government has two broad objectives for the communications market:

- to improve the communications services used by citizens and consumers in The Bahamas, both the quality and the price; and

- to encourage and safeguard future investment in the sector and in The Bahamas as a whole.

The proposals contained in this Consultation Document expand on the high level proposals outlined in the consultation paper 'Communications Regulatory Reform: Towards a new regulatory framework for the communications sector', dated 5 December 2008 ('Framework Consultation'), and takes into account the responses received to that consultation.

EXECUTIVE SUMMARY

(1) This consultation paper sets out proposals relating to the regulation of retail prices for communications services in The Bahamas.

(2) This consultation takes place during the interim period after the Communications Act, 2009 (the "Comms Act") and the Utilities Regulation and Competition Authority Act, 2009 (the "URCA Act") have been passed by Parliament but before they come into force. The Utilities Regulation and Competition Authority (URCA) shall replace the Public Utilities Commission (PUC) as the regulator for the electronic communications sector in The Bahamas. Under section 9 of the URCA Act as passed by Parliament and published on the Privatisation Committee's website, URCA is required to "allow persons with a sufficient interest a reasonable opportunity to comment" on proposed regulatory measures.

(3) The public and interested parties are invited to consider the proposals in this document and respond to the consultation with their views. When URCA becomes operational, URCA will then give due consideration to the comments received before introducing any measures. Regulatory measures will be introduced after the Comms Act comes into force..

(4) The present regime for retail price regulation and its discretionary nature is unsuitable for use in a modern, competitive communications market. The implementation of a new regulatory regime for communications in The Bahamas provides an opportunity to introduce new policies for the regulation of retail prices.

(5) A high level benchmarking exercise undertaken by our Advisors suggests that existing retail prices in The Bahamas may generally be higher than prices in other similar countries. With specific reference to retail tariffs applied by BTC, the Advisors have also explored the existing structure of retail charges and its appropriateness, as well the incidence of charges – i.e. who pays for the services.

(6) The options for responding to concerns about price levels include increased competition and more formal regulation. Price regulation may also be necessary as a transitional step as competition develops. If the regulator concludes that a more formalised process of regulation is required for some services it will also need to specify the form that regulation may take.

(7) This document sets out the options for retail price regulation in The Bahamas. Informed by international practices in mature markets, as well as certain countries in the Caribbean with developed telecoms markets, it sets out a preference for using price caps as the form of price regulation, and options for the design of a price cap regime.

(8) The consultation document does not propose the application of any specific price control remedy on any individual licensee, but simply seeks to establish the portfolio of price control remedies that could be applied and therefore create a general understanding among the licensees of how different remedies work and how and when they could be applied.

(9) Responses from the public are invited to the questions set out in this document. The deadline for responses is July 17, 2009.

A. INTRODUCTION

New Legal Framework

(10) The Communications Act, 2009 establishes the following powers[1]:

- Under Section 39 URCA may determine that a licensee has SMP if the licensee enjoys a position of economic strength which enables it to hinder the maintenance of effective competition in the relevant market (the term SMP refers to 'significant market power').
- Under Section 40 URCA may impose specific, ex ante conditions on licensees determined to have SMP[2]. Those conditions can include obligations relating to price controls, retail price regulations and the provision of service level guarantees with associated compensation payment to retail customers
- Under Section 116, particular companies are presumed to have SMP in the provision of services to retail customers (end-users) in the following markets:
  - Fixed voice (Bahamas Telecommunications Company Limited - "BTC");
  - High speed data services and connectivity (Cable Bahamas Limited - "CBL");
  - Mobile voice and mobile data services (BTC); and
  - Pay TV services (CBL).

(11) This consultation seeks views on the way in which URCA might exercise powers under Section 40 related to price regulation.

(12) This consultation takes place during the interim period after the Communications Act, 2009 (the "Comms Act") and the Utilities Regulation and Competition Authority Act, 2009 (the "URCA Act") have been passed by Parliament but before they come into force. The Utilities Regulation and Competition Authority (URCA) shall replace the Public Utilities Commission (PUC) as the regulator for the electronic communications sector in The Bahamas. Under section 9 of the URCA Act as passed by Parliament and published on the Privatisation Committee's website, URCA is required to "allow persons with a sufficient interest a reasonable opportunity to comment" on proposed regulatory measures.

(13) The public and interested parties are invited to consider the proposals in this document and respond to the consultation with their views. When URCA becomes operational, URCA will then give due consideration to the comments received before introducing any measures. Regulatory measures will be introduced after the Comms Act comes into force.

[1] References are given to the legislation as tabled in Parliament.

[2] Ex ante regulatory measures are designed and applied to deal with issues of concern in anticipation of those events occurring. By contrast, ex post measures are the application of competition law to deal with anti-competitive actions already taken by operators.

B. RETAIL PRICES IN THE BAHAMAS

How do Bahamian prices compare to prices in similar countries?

(14) The comparison of prices in one country with prices in other countries is called 'benchmarking'. Benchmarking relies on several assumptions to ensure that benchmark prices are efficient and directly comparable, including that:

- Comparator operators are largely efficient;
- Comparator prices are largely cost-reflective;
- Input costs are broadly similar between the countries, or can be controlled;
- The services being compared are broadly equivalent; and
- There is a consistent approach between operators to allocating fixed and common costs to individual services.

(15) Whilst it may be challenging for these assumptions to hold true at all times, this does not invalidate the results of any benchmarking exercise, but it does mean that conclusions must be carefully drawn. The results should not be seen as definitive evidence of inefficient pricing or otherwise.

(16) The Advisors have performed some high level benchmarking analysis, the results of which are presented below. The results give an overall impression of the relative level of retail pricing in The Bahamas which provides context to the discussion of retail pricing regulation. The benchmarking is presented in Appendix 2 to this consultation document.

(17) The analysis has been undertaken using both current exchange rates and published estimates of purchasing power parity exchange rates. The high level conclusions are similar regardless of the exchange rate used:

- Prices for fixed line international calls appear high, despite significant reductions over the last 5 years. Calls per minute to the USA, Canada and the UK are slightly higher than peak rate calls in the Cayman Islands, and substantially higher than peak rates in other small jurisdictions such as Guernsey, Jamaica and Malta. This comparison may overstate the differences, as The Bahamas only has one charging period (i.e. a flat rate irrespective of time of day) while some other countries have both peak and off-peak charges.
- Mobile charges also appear high. National prepaid and postpaid mobile calls appear relatively expensive. Performance on international mobile charges is more mixed, with The Bahamas being lower cost for some services. However, as it is shown in the next section, mobile customers in The Bahamas not only pay for outgoing calls, but also pay for some types of incoming calls – such practices do not apply in any of the other

countries included in the benchmark analysis. This increases the cost of mobile services in The Bahamas compared with other countries.

- Prices for access (line rental) and domestic local calls are bundled in The Bahamas, as the cost of free unlimited local calls is recovered from access (or monthly line rental) charges. Therefore, whilst the charge for access charges appear a little high in comparison with other comparator countries, it is difficult to compare across markets as the other benchmarked jurisdictions do not have free unlimited local calling. Ideally, if average usage of local calls was available from BTC, it would have been possible to compare the prices more effectively. However, such volume data is not available to compare the unit costs of bundled access charges and local calls.

- A medium speed internet service (3 Mbps download speed) appears to be priced at levels fairly similar to the comparator countries examined.

- Pay-TV services, for the standard 48-54 channel package offered by CBL at $30 per month, appear expensive in relation to other small island states, with the exception of the Cayman Islands. For example, similar number of channels offered in Jamaica and Malta range from US$10-23 per month. CBL's prices appear high despite the fact that the price for these services has not increased for the last fifteen years.

(18) It is recognised that undertaking comparisons of charges between countries is a complex exercise and that the results of this work can only be considered indicative. However the conclusions above appear consistent with those published in an earlier World Bank study. The data in this study concluded that charges for (off-peak) mobile calls and for a three minute call to the US were relatively high in The Bahamas.[3] The results of the benchmarking exercise are also broadly commensurate with the results of a 2006 Report (Promoting Investment in Information and Communications Technologies in the Caribbean by Peter Stern) commissioned by the Inter-American Development Bank[4].

(19) The Government's objectives of introducing competition will deliver better value for money for customers over times. In the meantime, URCA has the choice of introducing more formal price regulation as a necessary step to deliver the benefits of competition through effective regulation.

[3] World Bank, "Institutions, Performance and the Financing of Infrastructure Services in the Caribbean", 2005. Chapter 3 provides comparative information on the telecommunications sector. The report is available at the following URL: http://extop-workflow.worldbank.org/extop/ecommerce/catalog/product?context=drilldown&item_id=4892589

[4] Available at http://www.regulateonline.org/content/view/781/75/.

Tariff rebalancing

(20) Tariff rebalancing is a topic of importance in The Bahamas which is related to price control. In particular for BTC, which is deemed to have SMP in the fixed voice market, it is important to consider tariff rebalancing at the same time as price control because they impact considerably on one another.

(21) Tariff rebalancing refers to the steps taken by an operator to increase some tariffs (i.e. prices) and decrease others such that they better reflect the underlying cost of provision. It is a policy with strong international precedent. The problem, in simple terms, is that there is a tendency for certain services – typically local calls and access (line rental) services – to be under-priced and other services – typically international calls – to be over-priced.

(22) The practice of cross-subsidisation was used as a mechanism over the last few decades to fund network roll-out to the public across the country, so that they would have access to a phone, by charging high prices for certain services whilst making access to the basic telephone affordable and below-cost. Typically, any losses made on the access service are referred to as access deficit. This practice has been superseded by recognition by policy-makers that cross-subsidisation cannot be fully supported in a liberalised market, and therefore rebalancing of retail prices so that they reflect the underlying costs of provision, is necessary.

(23) Under the existing legal framework, there has been some rebalancing. The PUC has recognised the overall social and economic benefit of rebalancing for a number of years. In this regard it has been engaging with BTC over the need for tariff rebalancing for a number of years. The major changes since 2000 for BTC's fixed and mobile telephony tariffs (prices) are shown in Tables 1 and 2 below.

Table 1: Evolution of Monthly Fixed Line Rental ($/Line)

Access Service	2000	October 2004	November 2005	% Increase
Residential	9.50	9.50	15.00 12.00	57.89
Business	21.25	21.25	36.00	67.44

Table 2: Evolution of retail prices in The Bahamas

Service	Price 1st. min. 2000	Price/min Oct. 2004	Price/min. Nov. 2005	Price/min. June 2006	Price/min. Dec. 2008
DLD[5] peak	$0.40	$0.18	$0.18	$0.18	$0.18
DLD off-peak	$0.30	$0.18	$0.18	$0.18	$0.18
ILD[6] – USA	$0.99	$0.51	$0.51	$0.47	$0.47
ILD – Canada	$1.25	$0.54	$0.54	$0.50	$0.50
ILD - Caribbean	$2.25	$0.70	$0.70	$0.66	$0.66
ILD – Cuba		$1.75	$1.75	$0.85	$0.85
ILD all other	$2.75-3.00	$0.89	$0.89	$0.85	$0.85
Mobile postpaid peak	$0.20	$0.20	$0.20	$0.20	$0.15 - $0.20
Mobile postpaid off-peak	$0.10	$0.10	$0.10	$0.10	$0.10
Mobile prepaid peak	$0.40	$0.40	$0.40	$0.40	$0.33
Mobile prepaid off-peak	$0.20	$0.20	$0.20	$0.20	$0.15

(24) Notably in 2005 the PUC approved BTC's application to increase the monthly access charge for a telephone line from $9.50 to $15.00 for residential and from $21.25 to $36.00 for business customers. In addition, a new discount tariff plan for monthly access to a telephone line ($12) for Senior Citizens (age 65 and over) was also approved by the PUC. Meanwhile, since 2000 DLD call charges have fallen by more than 40% whilst ILD charges for calls into the USA and Canada dropped by 53% and 60% respectively and calls into the Caribbean by a significant 78%. Moreover, peak and off-peak DLD charges have been consolidated into a single charge. Mobile charges were constant up until December 2008 and have since also fallen.

[5] DLD = domestic long distance, that is inter-island calls within The Bahamas

[6] ILD = international long distance, covering all calls outside The Bahamas

(25) In the absence of updated costing information from BTC, it is difficult to assess whether the increases in the monthly access charges have partially or fully compensated BTC for its access deficit and whether further rebalancing is required. This will be determined by URCA and tariff rebalancing must be considered in the context of the price regulation reform. This is because the focus of retail price control is typically on reducing prices for the benefit of the consumer. Tariff rebalancing, however, requires that some prices be lowered but some others be *raised* (or reduced more slowly), such that the overall tariff structure is more cost-reflective and services cross-subsidise each other less. An approach to retail price control which pays no regard to the possible need for price increases for some services as part of an overall programme of tariff rebalancing risks unfairly penalising an SMP operator.

(26) It is the intention that the regulator should monitor the ongoing process of tariff rebalancing. Future retail price regulations should be determined with due consideration to any possible impact on tariff rebalancing.

Question 1: Is there a need for further tariff rebalancing in The Bahamas?

Question 2: Do you agree that the regulator should design a price regulation framework that enables tariff rebalancing? If you disagree, please state your reasons.

Bundling of Access and Local Calls

(27) The introduction of more formal retail price regulation provides an opportunity to consider changes to the structure of some retail prices in the fixed voice market in The Bahamas.

(28) Retail tariffs in The Bahamas currently bundle access charges with local calls. This approach is also adopted in some other countries such as Barbados, the United States and Canada. In other cases local calls are separately charged.

(29) There are advantages from bundling local calls with access charges. This approach is administratively simple. It also reflects the high sunk costs of the network and the low (but not zero) marginal costs associated with a local call.

(30) There are also disadvantages. All consumers are required to pay monthly access charges, regardless of the volume of calls that they make. This may prevent some low cost products being offered to low income consumers. Free local calls may also result in levels of demand, and of network congestion, being higher than they would be if consumers were exposed to charges which reflected the costs imposed by their use of the network.

(31) The bundling of access charges with local calls may also inhibit the development of competition in fixed line telephony, as there would not be any revenue associated with providing local calls despite the existence of both fixed and variable costs for most new entrants seeking to provide this service.

(32) There are several possible alternatives to the existing arrangements. One would be to maintain the current approach to bundling access charges with local calls, but to also provide plans with a lower access charge and no free local calls. Another alternative would be to provide plans with a certain number of minutes of free local calls each month, with a charge for any additional minutes. Such changes would give consumers greater freedom of choice whilst encouraging competitors to compete with existing operators for local calls.

Question 3: Are there benefits from introducing an option for monthly line rental at a lower price which excludes free local calls? If so, what type of plans for charged local calls would be most appropriate?

Incidence of charging

(33) The incidence of call charges for several voice services provided by BTC is shown below in Table 3. Incidence of charging refers to who pays for the call. The table distinguishes between call types where the calling party pays and where the receiving party pays.

(34) In most cases the calling party pays for the costs of the call, i.e. the receiving party pays nothing to receive the call. However, in the case of both domestic and international calls to mobile, the receiving party pays. This is true for both prepaid and postpaid mobile.

Table 3: Incidence of Charges

Call type	Charging Principle
Fixed-to-fixed	Calling party pays
Fixed-to-mobile	Receiving party pays
Mobile-to-fixed	Calling party pays
Mobile-to-mobile	Calling party pays
Mobile-to-fixed	Calling party pays
Incoming overseas calls to fixed	Calling party pays
Incoming overseas calls to mobile	Receiving party pays

(35) The charging principles shown in Table 3 have a number of advantages. They are familiar to both operators and consumers, and consistent with existing billing and other systems. In addition, for fixed-to-mobile calls, the fixed customer benefits by not paying for the call, thereby a fixed-to-mobile call has the same status as a fixed-to-fixed call on-island – both are free to the fixed line customer.

(36) The current incidence of charging also has a number of disadvantages:

- Many people value the use of prepaid mobile packages as a way of ensuring the access to telecommunications services they require, while controlling costs. As a result use of prepaid mobile has expanded rapidly in The Bahamas and other countries in the region. The ‘receiver pays’ principle for fixed-to-mobile calls means that it is not possible for consumers to fully control costs, as they may be exposed to

charges through calls initiated by other parties. Hence, mobile customers tend to avoid answering their phones – this is not desirable and inhibits usage of services and growth of mobile services.

- Although the fixed-line customer benefits when making a fixed-to-mobile call, the mobile customer is in effect cross-subsiding the fixed line customer and service.

- The 'receiver pays' principle requires that the receiving party bears the cost. In the case of prepaid mobile, this means that international and domestic fixed-to-mobile calls may be terminated if there is not sufficient credit remaining. This results in a loss of quality in the service provided and inconvenience for customers.

- International arrangements provide BTC with revenue for the terminating service for incoming international calls to Bahamian mobile numbers. For example, when a customer based in the US calls a Bahamian mobile number, BTC receives payment from the corresponding US operator for delivering that call to the Bahamian mobile customer. Such arrangements between operators apply irrespective of whether a fixed or mobile number is called in The Bahamas. Notwithstanding this, BTC also receives revenue domestically due to the receiver pays domestic charging system. This means that BTC has access to two, overlapping sources of revenue from incoming international calls to mobile numbers. In contrast, BTC does not charge its fixed line customers for receiving incoming international calls.

(37) In a competitive market where operators provide products with alternative charging principles then consumers might naturally select the preferred approach. However as there is no competition in mobile telephony this competitive pressure does not apply.

(38) It appears that the charging anomalies outlined in the foregoing paragraphs are not best practice and are not in the interest of the Bahamian public going forward. A move towards calling party pays for all domestic and international calls would enable a single consistent charging approach without anomalies and without overlapping revenues.

Question 4: Should The Bahamas move to a caller-pays principle for all calls? If you disagree, please state your reasons.

C. FUTURE APPROACH TO RETAIL PRICE REGULATION

Is the current approach to retail price regulation effective?

(39) A new legislative framework for communications in The Bahamas and a new licensing regime are due to come into force shortly. These developments provide the opportunity to introduce new policies and procedures for retail price regulation. Retail price regulation, along with other *ex ante* remedies, is enabled by the new legislative framework, and the application of *ex ante* remedies is linked to the determination of Significant Market Power for specific operators in specific markets.

(40) The possible exercise of these new powers needs to be informed by consideration of the effectiveness of the current approach to retail price regulation.

(41) Under the Telecommunications Act, 1999, the PUC has been required to:

"regulate the prices that may be charged by a licensee who is Dominant in a relevant market;"

(42) BTC's 2002 Interim Licence[7] contains the following Conditions:

"15. PRICE REGULATED SERVICES

15.1 Until such time as the Commission determines otherwise, the Licensee shall be deemed to be Dominant in the market for each of the services listed in Schedule 1[8].

15.2 Charges for providing each of the services identified in Schedule 1 ("Price Regulated Services") shall be as set out in that Schedule, and may be changed only with the prior written approval of the Commission.

15.3 The Commission may amend the charges set out in Schedule 1 or any other charges for services in any markets where the Licensee has been declared Dominant subject to consultation with the Licensee and any other interested parties, and shall issue an instruction to the Licensee to amend its charges accordingly.

15.4 Where the Licensee intends to introduce:

(a) new prices for Price Regulated Services and prices for new Price Regulated Services;
(b) discounts to published prices for Price Regulated Services; or
(c) special offers to Users;

it shall provide the Commission with full details of the same and shall ensure that such prices are transparent and non-discriminatory, and that discounts and special offers are objectively justifiable.

[7] Which remains effective until the new communications legislation currently passed through Parliament comes into force and BTC requests a new licence under the Comms Act.

[8] Schedule 1 lists initial prices for the following services: Installation of a telephone exchange line, Monthly rental of a telephone line (residential and business), Automatically Switched Local Calls, Automatically Switched Inter-Island Calls (peak and off-peak), Automatically Switched International Calls (to certain countries), operator assisted calls (Inter-Island and International), Cellular Mobile Services, public pay apparatus, and directory inquiries.

15.5 The Commission may amend Schedule 1 from time to time by adding approved charges for new Price Regulated Services introduced by the Licensee under Condition 3.2[9].

15.6 Prices for:

(a) all existing services shall be published within fourteen (14) days of the Licence Commencement Date; or

(b) all new services shall be published at least twenty-one (21) days before coming into effect in every case, provided notice has been given to the Commission under Condition 3.2;

and the Licensee shall maintain a public and current schedule of all prices in effect at all times."

(43) The Interim Licence describes the form of price control which has been implemented in telecommunications to date in The Bahamas. BTC has had to apply for permission for all price changes including price decreases. In addition, special offers and discounts are subject to regulatory approval pursuant to Condition 15.4 of the Interim Licence.

(44) Additional principles governing retail price regulation in telecommunications services are specified in Section 8.5 of the Telecommunications Sector Policy amended October, 2002.

(45) For Cable TV, the pricing regime is similar to telecoms in that prices are reviewed and approved on a case by case basis under a separate regulatory regime. Cable TV prices for the basic package have not in fact changed in the past 15 years: the applications by CBL for price changes to the basic package have been declined.

(46) The current policy for retail price regulation involves a high level of discretion. Both BTC and the regulator have had concerns over the policy's use in recent years. The process for approval of price changes has proved time-consuming and provides very little incentive for BTC to be efficient. All price changes, including decreases, are required to be the subject of public consultations. The requirement to apply for permission for all price changes appears to be more onerous than in many other regulatory regimes.

(47) International best practice is to move away from this sort of discretionary price setting to a more transparent process that provides a balance between consumer protection, flexibility and incentives for operators to be innovative whilst promoting efficiency.

[9] That The Licensee may from time to time, and subject to giving sixty days prior written notice to the Commission, introduce additional telecommunications services or cease to provide non-obligatory services.

(48) In line with the reform of the regulatory regime for communications in The Bahamas, it is proposed that the regulator replace the current policy with a new policy based on international best practice and an understanding of the current state of development of the Bahamian communications market.

Question 5: Do you agree that the historical approach to retail price regulation should be reformed in the newly liberalised environment? If you disagree, please state your reasons.

Objectives of proposed price regulation

(49) The form of regulation adopted in The Bahamas needs to be designed to meet a variety of objectives. The Government considers that retail price regulation should meet, on balance, the following policy objectives:

- Foster an environment where prices are cost orientated to promote efficiency.
- Develop an environment where the Bahamian public can share in the expected efficiency gains through lower prices.
- Foster the availability of reliable, affordable and high quality communications services throughout the islands of The Bahamas.
- Provide the regulated entities with incentives to improve efficiency invest in new plant and equipment and be more innovative.
- Provide the regulated entities with a reasonable opportunity to earn a fair return on capital employed.

Question 6: Do you agree with the objectives proposed for price control regulation? If you disagree, please state your reasons.

(50) This paper discusses the role of retail price regulation in delivering consumer protection and cost-oriented pricing. In countries with more developed competition regulators pursue the same aims through regulation at the wholesale level only. This is because mandating wholesale access prices can deliver effective competition which renders retail price regulation unnecessary. It is the Government's view that the level of competition in The Bahamas may be too low at present and in the near future to remove the need for retail price regulation.

Question 7: Do you agree with the Government's view that wholesale price regulation alone may not be sufficient to protect consumer interests in the present and near future?

Form of Regulation – Rate of Return versus Price Caps

(51) As highlighted above, the existing approach to retail price regulation suffers from a number of drawbacks.

(52) The Government's objectives therefore require a more formal and transparent approach to price regulation. Two broad approaches to price regulation can be considered to meet these objectives: The first approach is the 'rate of return' or 'cost of service' approach.

(53) Rate of return is the traditional form of rate making in network industries such as telecommunications and electricity. Under this form of price regulation periodic reviews are undertaken of the cost of service, either at the request of the regulated entity or initiated by the regulator. These reviews establish prices at a level which allows the operator to earn a target rate of return given its cost base. This form of regulation was popular in the USA during the latter half of the twentieth century.

(54) However, concerns then arose that it encouraged excessive capital investment relative to other inputs. This was known as 'gold plating', indicating that operators tended to develop high cost networks under rate of return regulation. This form of regulation provided poor incentives for operators to minimise costs, since the cost of service was directly reflected in prices.

(55) Other criticisms levied at rate of return regulation are that:

- Investment risk is borne entirely by ratepayers;
- It encourages cross-subsidization between regulated and non-regulated services; and
- It imposes a significant regulatory burden on the regulated entity and the regulator due to the frequency of, and level of scrutiny required in, rate reviews.

(56) If the regulator leaves the regulated firm to determine the optimum mix of inputs to be used, and if the firm has a cost of capital which is below the return on capital which is allowed by the regulator[10] then the operator will have a strong incentive to expand its capital base and a weak incentive to take action to reduce capital investment.

(57) As an example, capital investment responds to peak demand. An operator may therefore have incentives to reduce peak demand, for example through the introduction of peak and off-peak differentiated charges. However, under a rate of return regime the operator does not have an incentive to manage peak demand since it will automatically recover the capital costs incurred.

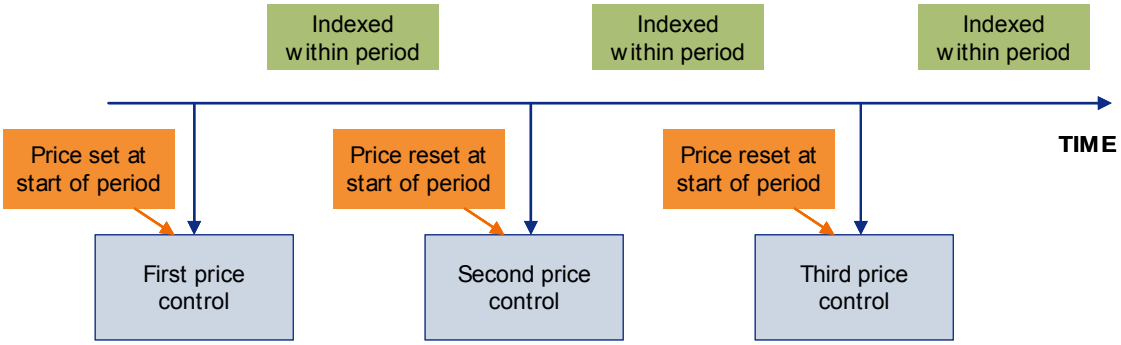
[10] The approach to setting prices which allow a reasonable return on capital employed is discussed later in this consultation

(58) The weaknesses of rate of return regulation were identified in the economic literature during the 1960s. This has led to a move away from rate of return regulation to approaches which provide operators with stronger efficiency incentives, at least for a period.

(59) A second approach to price regulation, known as 'price cap regulation' was developed in response to the shortcomings of rate of return regulation. Under this form of price regulation prices are set for a number of years. These prices typically apply to a basket of services; are increased in line with inflation; and are reduced in line with expected improvements in efficiency over the period. As a result, this is commonly referred to an RPI-X form of price regulation, where RPI refers to the Retail Price Index or Inflation, and X refers to the expected efficiency improvement.

(60) A simplified example of price cap regulation over time is shown in Figure 1. The price is set at the beginning of the first price control period. Prices within the period are then indexed. The index would reflect inflation but may also allow for real price changes over the period. The period would typically last several years. At the end of the period the price is reset.

Figure 1: Simplified example of price cap regulation over time



(61) This approach is widely used internationally. The regulator in the United Kingdom (Ofcom) introduced price caps in 1984, and price caps are now increasingly common in the rest of Europe. In the United States, price cap regulation began replacing traditional rate of return regulation for telecommunications carriers in 1989. By the mid to late 1990s, nearly every state had a price cap regime in place for the telecommunications industry. Examples of price cap use can also be found in markets in Latin America, and the Caribbean including the Turks and Caicos Islands, Barbados, the OECS and Jamaica.

(62) It is worth noting that both price cap and rate of return regulation draw on analysis of the actual cost base of the regulated operator. In both cases this may be combined with regulatory scrutiny of any cost inefficiencies, or possible productivity gains. However, the key difference lies in the incentives they provide for future improvements in operator efficiency:

- In its simplest form, rate of return regulation ensures that the regulated business earns a defined rate of return. It achieves this by resetting prices frequently, or whenever there is a material change to underlying costs. This reduces risk for the operator but means that there is little or no incentive to identify and implement steps to improve efficiency.

- By contrast, price cap regulation sets prices for a defined period, normally several years. Within that period changes in the operator's efficiency are directly reflected in operator profits. This creates incentives for efficiency improvements, which can then be reflected in lower prices in a subsequent period.

(63) Price cap regulation is considered to be the most appropriate form of regulation for use in The Bahamas, if formal price regulation is to be introduced.

Question 8: Do you agree with the proposal to adopt price cap regulation? If you disagree, please state your reasons.

Interim Pricing Framework

(64) Ex ante retail price regulation through use of price caps is one among several remedies that URCA could use to regulate an operator with significant market power (SMP). However, it is very unlikely that URCA could implement price cap regulation in the short-term. Significantly, it will take time to develop robust and well informed regulatory views on the appropriate level of the price cap. For example, the regulator would require a number of data inputs and assumptions, including:

- Pre-price cap period or "test year" financial results for each regulated entity split out by regulated service;

- An estimate of an appropriate Weighted Average Cost of Capital (WACC) for each regulated entity;

- Forecast market growth rates for each operator's regulated services and general inflation rates for The Bahamas;

- Price sensitivity parameters (or elasticities) and factor input cost and capital efficiency parameters appropriate for each regulated service; and

- Such other economic and business considerations as URCA determines may appropriately reflect the real productivity gains to be expected from the regulated firm.

(65) The above information might not be readily available to enable URCA to develop financial models that require projections over a 3-5 year horizon with a fair degree of confidence and precision. If the price cap is put in place hurriedly and without the confidence of the regulator or regulated entity that the value of the X factor and any other parameters were reasonable,

there is a danger that the outcome could be highly counter-productive and discredit the whole price cap approach.

(66) In preparation for such regulation and other measures, the Committee's Advisors are consulting with the two designated SMP operators (BTC and CBL) on the implementation of regulatory financial reporting ("RFR") and costing information which serves as a critical input to price cap design. This overall approach was also shared more widely at a public workshop held on 27 May, 2009 and the presentation from this work shop can be found on the Committee's website www.btcprivatisation.com. The proposed roadmap for development of the necessary costing information is expected to take an estimated 6 months.

(67) For the above reasons, URCA anticipates that transitional arrangements may be required for six to twelve months prior to any implementation of formal price cap regulation. Those transitional arrangements should ensure that operators have sufficient flexibility to respond to changing commercial circumstances and sustainable competition is promoted while also ensuring that consumer interests are protected.

(68) This approach is consistent with the approach to liberalisation that was adopted in some Caribbean countries and more widely. In many cases transitional arrangements have been established prior to moving to a longer term and more formal approach to retail price regulation. Table 4 below shows that several other countries in the region have adopted an RPI-X regime. It also makes clear that in many cases there was a need for transitional arrangements of 1-2 years between the commencement of liberalization and the implementation of the price cap regime.

Table 4: RPI-X Regimes in Neighbouring Markets

Country	Commencement of Liberalization	Implementation of R/CPI-X Regime
Anguilla	2005	Not yet in place
Barbados	2004	RPI-X was first introduced on April 1, 2005*
Cayman Islands	2004	Not yet in place
ECTEL	2003	RPI-X was first introduced in 2005
Jamaica	February 2000	RPI-X was first introduced in August 2001*
Trinidad & Tobago	2006	Not in place
Turks & Caicos Islands	July 2006	RPI-X was first introduced in January 2006

*Price caps replaced the rate of return system previously used to regulate Cable & Wireless retail prices.

Question 9: Do you agree with the proposal to introduce an Interim Pricing Framework in the short term? If you disagree, please state your reasons.

(69) It is intended that the Interim Pricing Regime shall come into effect on the commencement date of the new Comms Act. Although the regime would be for a brief period, the policy

objectives specified in paragraph 49 above would remain applicable during this period. The Interim Pricing Regime would be governed by the following principles:

- Charges for each Price Regulated Service would be changed only with the prior written approval of the regulator;
- The regulator would amend the charges for a Price Regulated Service subject to consultation with the operator and any other interested parties, and would issue an instruction, determination or decision to the operator to amend or modify its charges accordingly;
- Where an operator intends to introduce new prices for Price Regulated Services and prices for new Price Regulated Services it would provide the regulator with full details of the same and would ensure that such prices were transparent and non-discriminatory;
- All applications to introduce new prices for Price Regulated Services and prices for new Price Regulated Services would have to be reviewed in a timely, transparent, objective and non-discriminatory manner and subject to a reasonable period of public consultation; and
- The operator would be expected to comply with all instructions and or directives issued by URCA in respect of permanent prices changes.

Question 10: What principles should underpin any Interim Pricing Framework for retail price regulation and on the nature of the interim arrangements?

Special Offers or Discounts

(70) During the Interim Period the regulator would also retain regulatory controls over special offers or discounts. The form of controls might include:

- The operator would conduct special offers, or introduce discounts to published prices, for Price Regulated Services only with the written consent or approval of the regulator.
- Where the operator intends to conduct Special offers or introduce discounts to published prices for a Price Regulated Service, it would provide URCA with a full description of the same, and the rates, terms and conditions applicable thereto would be subject to approval.
- The regulator would review the submission for special offers or discounts and notify the operator of its decision within 10 working days.
- The Special offers or discounts would not endure for more than 90 days after the launch date.

- The operator would ensure that the special offers and discounts are transparent and non-discriminatory, and are objectively justifiable.

- The same special offers or discounts should not be similar to a special offer or discount that concluded less than 120 days earlier.

- The operator would have to launch the Special Offers or discounts within thirty (30) days of the date of a letter of approval issued by the regulator.

- The operator would notify the regulator in writing, no later than five (5) working days prior to the effective launch date of the special offers or discounts.

- The operator would maintain all relevant traffic data, revenue and marketing records pertaining to the Special Promotion and would provide these to the regulator upon request.

- Following approval by the regulator, the operator would publish in one or more newspapers with national circulation the eligibility criteria for the special offers or discounts and other terms and conditions.

(71) It is anticipated that the operator would be required to comply with all instructions and or directives issued by the regulator in respect of special offers or discounts to published prices for Price Regulated Services.

Question 11: Do you agree with the proposed regulation of special offers and discounts? If you disagree, please state your reasons.

D. DESIGN OF PRICE CAP REGIME

(72) As discussed in section C it is anticipated that the preferred form of regulation for retail prices would be price cap regulation. This section of the consultation discusses the main options and preferred approach for the design of price cap regulation.

(73) Price cap regulation uses a formula to determine maximum allowable price changes for an operator's services over a specified time period.

(74) The price cap formula is designed to achieve two main objectives. First, it establishes incentives for the operator to increase efficiency. As prices are set through the formula, rather than through underlying costs, efficiency gains should be reflected in profits. Second it is designed to ensure prices remain reasonably aligned with costs through passing on cost increases which are outside the operator's control (such as inflation) and through periodically resetting the regulated price cap.

(75) In RPI-X regulation, the regulated operator would have freedom to change its prices. However, the average change in prices charged by the company as measured by the Actual Price Index (API) must be equal to or less than the Price Cap Index (PCI), i.e. API ≤ PCI.

(76) The basic form of a price cap is to change prices in line with inflation and the efficiency or productivity factor X. The basic price cap formula is:

$$PCI^{k}_{t} = PCI^{k}_{t-1}(1 + I_t - X_t)$$

where,

PCI_t = Price Cap Index for each service basket in year t;
PCI_{t-1} =Price Cap Index for each service basket in year t-1;
I_t = the annual inflation factor measured through the All Bahamas Price Index or some other proxy index; and
X = the productivity factor for year t.
t = the relevant price cap period (which runs for a full calendar year)
t-1 = the 12 month period ending prior to the relevant price cap period (t)
k = basket of regulated services

(77) Put into words, the price cap formula effectively says that the combined price change for regulated service in the relevant year should not be larger than the rate of inflation over the period, minus a certain percentage X set by the regulator.

(78) Under this pricing regime, URCA's principal role is to ensure that the average change in prices charged by the operator for basket k of services in year t (API^{k}_{t}) is less than or equal to the price cap index for basket k of services in year t (PCI^{k}_{t}). Meanwhile, the regulated entity must:

(i) provide URCA with information demonstrating that API^{k}_{t} is at or below the PCI^{k}_{t}; and

(ii) notify URCA and the general public of any price changes.

(79) The price cap may also allow for an external or Z-factor, i.e. $PCI^{k}_{t-1}(1 + I_t - X_t \pm Z_t^{k})$. The Z-factor is designed to protect the operator against negative or positive cost changes in external costs over which they have no control. The possible approach to X and Z factors is discussed further below.

Question 12: Do you agree with the proposed form of the price cap shown above? Do you have views based on experience with price cap regimes on the application of a price cap with this broad form?

How the starting price is set

(80) Under a price cap regime an initial price cap for a service or basket of services is set at the start of the price control period. This price cap is then increased in line with an index for each year of the period.

(81) A price cap regime of this kind creates good incentives for efficiency. Efficiency gains, through savings on capital investment or on operating costs, are reflected in increased profits. However it is not possible to rely on indexation for too long. The price caps resulting from the starting price and the application of the index will diverge over the operator's actual costs over time. This may either lead to high profits or to prices which are unsustainably low.

(82) As a result price cap regimes include a periodic 'reset'. The starting price for the next period is determined by the regulator. This is known as the 'Po' adjustment.

(83) There are two possible approaches to determining the price, Po, at the start of the next price control period. One approach is to make use of international data on the efficient costs of providing the service, after allowing for the particular input costs and operating environment faced by the operator.

(84) Analysis of the efficient costs of service provision, based on analysis of international performance can be used to set the starting price. Alternatively the starting price can be determined on the basis of actual operator costs, but the approach to price indexation can be based on international comparators. The use of measures of this kind is discussed in the next section, with reference to setting efficiency targets over the price control period.

(85) The second and more common approach to establishing the starting price is a 'building blocks' approach. Under a building blocks approach the starting price is based on the revenue required by the operator to recover three costs: the return on capital employed, depreciation and operating costs.

(86) The return on capital employed is determined by two factors:

- The weighted average cost of capital ("WACC") for the operator. The approach to setting the WACC is based on economic theory (in particular the Capital Asset Pricing Model, or CAPM). A substantial amount of international literature and body of

regulatory determinations exists on ways of setting the WACC. In essence the usual regulatory approach is to allow for a required return on equity (on the basis of the risk-free rate, the equity risk premium and the equity Beta[11]), an assumed cost of debt (on the basis of the relevant premium for debt), and an assumed gearing for the regulated entity, and

- The regulatory asset base (RAB), that is the value of the assets used by the operator to provide the regulated services. The regulator typically forecasts both the starting level of the RAB, and the forecast additions to the RAB through investments over the price control period. Again, a substantial body of literature exists on approaches to determining and updating the RAB over time.

(87) Depreciation is determined by the application of appropriate depreciation rates to the assets within the regulatory asset base. Operating costs are typically based on actual operating costs, but may be adjusted for possible efficiency improvements either at the start of the price control period or over the period.

(88) During the price control period, the return on capital and depreciation will be based on forecast capital expenditure. However actual capital investment over the period is likely to differ from forecast. The going-in prices at the beginning of the next period are therefore reset to reflect the change in actual costs from forecast. Typically this adjustment will reflect any reductions in the capital investment required over the last period, but may not fully reflect cost over-runs, in order to avoid simply becoming a 'cost pass-through' regime.

(89) A similar approach could be applied to pay TV. A cost build-up of this kind would apply to the cable network used to supply the service. A similar approach has been applied in other regimes when assessing whether a dominant provider is allowing access on reasonable terms. For example, when the Office of Fair Trading in the UK investigated abuse of market dominance in pay TV in the UK in 2002, it assessed BSkyB (the service provider) as if it was two vertically separate firms – a broadcasting channel and a distribution business. This required assumptions on the allocation of common costs and the appropriate return on investment[12].

(90) This enables the regulator to form views on the appropriate charge for accessing the distribution network. For an integrated service provider with limited competition, it would also be necessary to take account of the costs of providing the service using that network.

(91) A 'building blocks' regime requires good financial models for the regulated businesses. In a mature regulatory regime, both operators and the regulator will have well developed financial models in a form consistent with the regulatory regime. In The Bahamas it will be necessary to develop this over time.

[11] Beta is a statistical measure of the relative volatility of an investment related to a benchmark such as the market as a whole.

[12] Details of the investigation are at http://www.oft.gov.uk/shared_oft/reports/media/oft623.pdf. The investigation concluded that BSkyB was not in breach of competition law.

(92) URCA intends to start by developing a financial model that projects costs over the price cap period based on:

- historic cost accounting;
- fully distributed costs, based on activity based costing; and
- other information as relevant.

This approach is consistent with its ongoing engagement with the industry on the cost standards and proposed roadmap for the first 6-12 months of the new regulatory regime (see paragraph 66).

(93) URCA also recognises that the information base for scrutiny and review of operator costs and cost forecasts requires further development. It may therefore also draw on international benchmarking to form views on the performance of the businesses and the appropriate level of the starting price.

Question 13: Do you agree with the use of a 'building blocks' regime to determine starting prices under the price cap?

Form of indexation

(94) Within the pricing formula presented above is an inflation factor (I_t). This is set by reference to an independent measure of inflation. The objective is to align prices with costs over time.

(95) Typically either the Consumer Price Index (CPI) or Retail Price Index (RPI) is chosen as the appropriate index. URCA may also consider a tailored index which better allows for changes in the prices of particular inputs. This may be appropriate if there is evidence that the change in input costs for the businesses is poorly aligned with the published inflation indices.

(96) It is proposed that a CPI index be used, based on the All Bahamas Price Index, as supplied by the Department of Statistics.

(97) The All Bahamas Price Index draws on information for two most populated islands within The Bahamas rather than all islands. It is likely that prices will be higher in some smaller islands not covered by the index. However, there is no evidence to suggest that price inflation will be higher or lower in other islands. In the absence of any more comprehensive inflation index, this therefore appears the most appropriate source.

(98) There is typically a time lag of some months in the publication of the Price Index. It may therefore be more practicable to use the prior year's inflation rate. The price formula outlined above in paragraph 76 would then determine the current year's price cap based on the starting price and the prior year's inflation rate.

Question 14: Do you agree with the use of CPI within the price control formula? If you disagree, please state your reasons.

Question 15: Do you agree with the proposed use of the prior year's inflation rate as measured in the All Bahamas Price Index? If you disagree, please state your reasons.

X- factor

(99) Under most price cap regimes prices are not simply indexed against inflation, resulting in a constant real price. The index normally includes an X-factor. The X-factor is set to reflect the expected productivity gains during the period. It may vary by year, or may be constant for each year of the price control.

(100) Consumers benefit by receiving these gains over the period, rather than at the next price reset. The operator faces incentives to minimise costs due to the existence of a price cap. If the operator's actual cost reductions exceed the X-factor, the operator earns above expected returns. On the other hand, if the operator's actual cost reductions are not as great as required by the X-factor, then the operator's returns will be lower.

(101) There are two broad approaches to forecasting potential efficiency gains and so the X-factor. One is to base the prices on international trends in productivity. The second is to base this on the operator's own costs and how these are expected to evolve over time.

(102) An approach based on international comparisons requires information on the efficiency with which different operators convert inputs into the required services:

- Partial factor productivity refers to the productivity of particular inputs (such as output per employee). This can provide insight into how well operators use particular inputs but can be misleading as an indicator of overall efficiency. For example, output per worker may be low because of poor management, or it may be an efficient approach if labour costs are low and capital costs high.

- Total factor productivity (TFP) refers to the productivity with which multiple inputs are used to produce multiple outputs (such as telecoms services of different kinds). A variety of techniques have been developed to ensure that comparisons can be made between different operators, allowing for differing input costs and differing outputs. These approaches can allow regulators to set prices for any individual operator at the

level needed to achieve a reasonable level of profits if they meet the average or highest performance of other, comparable, operators.

(103) The advantage of price regulation based on TFP (or other measures based on international performance) is that it has strong incentive effects. The operator's regulated prices are based on a wider set of benchmarks, rather than on the operator's own costs and productivity. This gives the operator strong incentives to improve its performance since the benefits of any improvement are retained by the operator.

(104) In theory international benchmarking could be used to set starting prices, and trends in TFP could be used to set achievable efficiency gains over the period. However, there are several difficulties with sole reliance on measures of this kind:

- It can prove challenging to identify which cost differences are attributable to the operating environment and jurisdiction and which are due to management performance. This has often led to dispute and disagreement when too much reliance has been placed on benchmarking.

- Its application requires a sufficiently large sample of benchmark firms that are comparable to the firm being regulated. This poses challenges even when there are multiple operators within a single industry and single country. In the case of The Bahamas it would require drawing on benchmark operators in other countries. This would require complex and possibly contentious adjustments for the significant difference in the operating environment.

(105) For these reasons it is rare to rely solely on TFP (or similar) measures to directly set starting prices or the X-factor over the period, even where there is a database relating to a large number of operators within a single country to support this approach.

(106) The second possible approach is to base the X-factor on the operator forecasts of revenues and costs over the price control period. The regulator may also retain industry specialists to provide independent review of the projected costs. The regulator may also draw on partial productivity measures (for example to assess achievable efficiency gains in some operating costs) to inform decisions. See paragraph 66 for more information.

(107) It is likely that regulatory decision making will make use of information on comparative performance when making determinations on prices at the start of a price control period and on the indexation during the period. However TFP (and similar) methodologies may not be sufficiently rigorous to establish an automatic and direct relationship between benchmarking information and regulated prices.

(108) There is a trade-off when selecting the appropriate level of X. If a low value of X is determined, there is a risk that the regulated company can make excess profits (above a reasonable regulated rate of return or cost of capital) and consumers pay too high prices. If a high value of X is determined, it increases the risk that the regulated company may not be financially viable and there is a cost to shareholders and consumers.

Question 16: Do you agree with the use of an X-factor to reflect expected productivity gains over the period?

Duration of price control periods

(109) A price cap regime includes a price control period. Within the period the price cap is determined through application of the index. At the start of the next period prices are reset, usually on the basis of a building blocks approach to determining efficient operator costs.

(110) The main options for the duration of the price control period are:

- Short term (one year, or in response to defined triggers in input costs);
- Medium term (three to four years); or
- Longer term (five years).

(111) Five year price control periods are common for relatively stable network businesses with high fixed costs, such as water businesses or electricity or gas networks. The communications sector has often used shorter price control periods, reflecting the greater level of dynamism in the sector.

(112) The period of the price control is important because of its impact on efficiency incentives. Shorter price control periods provide lower incentives as the operator has a reduced chance of keeping increased profits generated from cost savings. On the other hand, a shorter period is more sustainable for operators as long periods include a risk of being unable to recover significant costs if efficiency gains are not made as planned.

(113) The appropriate price control period will also be affected by the evolving market situation in The Bahamas. For example, BTC's cellular exclusivity will be maintained for two years after privatisation. Too short a price control period would mean that there would be limited experience with cellular competition and its implications for a future price control. However, too long a price control period might lock in prices which were inappropriate following the introduction of competition.

Question 17: What price control period do you think should be used? Do you believe that the appropriate price control period is affected by the proposed phasing in of competition in The Bahamas?

External (Exogenous) cost factor

(114) Price caps create incentives for operators to increase efficiency, since this is reflected in increased profits. However, price caps also create risk for operators. Operators may be exposed to cost shocks which are outside their control and these cost changes may not be reflected in prices.

(115) There are two main mechanisms for managing this risk:

- Inclusion of an exogenous cost component, or Z-factor, in the price cap formula. This allows the regulated operator to adjust for changes in costs that are beyond its control.
- Allowance for a re-opening of the price cap in response to defined trigger events related to operator costs or profitability.

(116) The price cap regime already protects against general price inflation. By including a Z-factor in the price cap, regulators can also allow changes in certain types of costs to flow directly through to the price cap index, without affecting the operator's incentives to control its costs. Thus changes in the operator's prices (or at least in the price cap index) can more closely track changes in costs.

(117) When establishing a Z-factor it is crucial that regulators treat only those events over which the operator has no control as exogenous. Some exogenous factors are easy to identify, for example changes in taxation or in regulatory rules. However, other exogenous factors changes are difficult to isolate.

(118) As an example, the Canadian Radio-television and Telecommunications Commission adopted an exogenous component in its 2001 price cap plan. Adjustments were considered for events or initiatives that satisfied the following criteria:

- They are legislative, judicial or administrative actions which are beyond the control of the company
- They are addressed specifically to the telecommunications industry, and
- They have a material impact on the Utility Segment of the company.

(119) The benefits of a regime of this kind are the protection it provides against risks which may be outside the control of the operator. There are also disadvantages. The regime already protects against general price inflation, and a specific Z-factor will increase complexity. It may reduce the incentive for operators to respond efficiently to cost shocks. It also provides less certainty for potential new entrants on the likely prices to be set by the regulated incumbent.

Question 18: Should a Z factor be included? If a Z factor is included what are some of the exogenous occurrences that should be considered?

Quality of Service

(120) Price cap regulation creates incentives to reduce costs as this will increase business profitability. This may also result in an incentive to cut costs that reduce service quality. Some price cap plans therefore include a service quality component to ensure that service quality does not suffer.

(121) Quality of service targets may include performance measures such as time for new connections, incidence of faults per 1,000 lines, frequency of billing errors or billing complaints, or performance in responding to call centre inquiries, appointment times, dropped calls, congestion, etc.

(122) There are three main mechanisms to incentivise operators to maintain quality of service. One is monitoring and publication of performance. This creates greater transparency of performance and encourages a greater management focus on quality of service. However, given the small scale of the market and low number of service providers, it may be hard to judge whether published performance against Key Performance Indicators (KPIs) represents good or poor performance.

(123) A second mechanism is the use of customer contracts which include compensation when performance falls below defined levels. If this compensation reflects the value that customers place on quality of service then businesses should have correct incentives to optimise performance. The regulator has powers to impose conditions related to service level guarantees on licensees determined to have SMP.

(124) This mechanism can work well where there is a contract for service between the customer and the service provider. It does not perform well in services such as prepaid mobile where there is no contract for service between the customer and the service provider. There has been rapid growth of prepaid mobile in The Bahamas which means that this approach would not offer any protection to the vast majority of mobile users.

(125) The third mechanism is for quality of service to be reflected in a reduced level of revenues to be allowed by the regulator. Under a price cap regime, this could be implemented through adjustments to the starting price (P_0) in response to performance on quality of service in the previous period. This can provide a useful additional mechanism for services such as prepaid mobile where customer contracts are absent.

(126) International experience suggests that it will be necessary to establish quality of service KPIs under a price cap regime and to ensure there are commercial incentives to meet them. A combination of the three mechanisms outlined above may be used for this purpose.

Question 19: Do you agree that quality control incentives should be built into price control regulation? What are the relevant key performance indicators (KPIs) that you consider could be utilised for monitoring quality?

Carry over of Headroom

(127) The typical form of an RPI-X price control is to set a cap on retail prices (or on prices for a basket of services - see below) over a number of years. This raises the question of how price reductions (or price increases below the allowable cap) are treated over the period. There are two options:

- The price cap can be established ex-ante for each year of the period. The regulator may then be indifferent between whether this is delivered through early reductions followed by stable (or even increasing) prices or through equivalent annual price changes, provided the price in each year is at or below the cap; or
- The price cap may apply to year-on-year changes. This means that early reductions below the level required by the cap cannot be carried over into subsequent years of the price control period. The operator will be required to make an annual change in prices (at a level of RPI-X) and any early reduction in prices will be reflected in lower prices for subsequent years of the period.

(128) The first approach provides the operator with greater flexibility, within an overall price cap for the period as a whole. This may be valuable as operators get exposed to a more liberalised and competitive environment. It can also be argued that any reduction in prices below the cap will benefit consumers and should not be restricted by the regulator.

(129) The second approach constrains the operator's approach to pricing within the period. One benefit of this approach is that it can limit anti-competitive pricing through an early price reduction designed to deter competitive entry, followed by stable or even increasing prices.

(130) Regulators often anticipate that there may be price reductions over the period. However it is also possible that prices may need to increase – for example if there is a large requirement for investment in regulated networks. In addition there may be several tariff baskets (see discussion below) and this might allow an increase in prices for some services, even if the overall tariff basket saw a price reduction. The discussion about carry over applies regardless of whether the operator is carrying over a reduction lower than required, or an increase which is lower than would be allowed under the cap.

(131) Consumer interests in the long term may be best protected by steps which support the development of competition. This may argue for an approach which either does not allow 'carry-over', or which requires regulatory approval for prices which are substantially below the cap established by the regulatory regime.

Question 20: Should operators be able to carry over out-performance in early years into the later years within the same price control period?

Information requirements

(132) Operators subject to price cap regulation will be required to provide pre-determined relevant information to the regulator to assist with the periodic reset of the price cap and to monitor the operators' compliance with the price cap and with quality of service requirements.

(133) In order to set the appropriate cap, the regulator will engage with the regulated operator to determine expected productivity gains and exogenous costs. An estimate of the cost of capital of the operator will also be required. If the operator is unable to provide satisfactory support for its data, the regulator may either perform its own calculations or benchmark the data internationally.

(134) Once a cap has been set the regulated firm is responsible for calculating in each period:

- The Price Cap Index (PCI). This index is the overall constraint of the firm's prices in a given period, and is calculated based on the price cap formula;
- The Actual Price Index (API). This index shows the actual level of prices, and should not exceed the PCI; and
- A Service Basket Index (SBI) for each basket, where services are grouped into different baskets.

(135) The regulator will check the calculation of the API and the PCI to ensure that the operator's actual price changes do not exceed the constraints of the price cap.

(136) The requirements for the provision of information in The Bahamas will link in with URCA's new regulatory financial reporting regime (see paragraph 66).

Question 21: Do you agree with the initial thinking on the provision of information for use in price control regulation?

Baskets of services

(137) It is intended that URCA will consider applying retail price caps to a group of services. These are termed the 'basket of price regulated services'. The use of a basket allows operators to have some price flexibility: they can change individual prices within the basket so long as the average price index remains below the price cap index. The average would reflect the weightings of different services in the basket.

(138) An approach of this kind has several benefits:

- The use of service baskets, rather than separate price controls for each tariff, provides greater flexibility to operators as they enter a liberalised and more competitive commercial environment.
- As local calls are free they cannot be subject to an RPI-X price cap. However, bundled access charges and local (and possibly other) calls could be subject to a price cap. Such an approach might also ensure that any changes to price structure (for example, the introduction of plans with some charged local calls) would not create excessive costs for consumers.
- The use of a service basket enables some rebalancing where retail prices are considered to be out of line with costs. Rebalancing is discussed further in the next section. However, it can also ensure that the rate of change for any particular consumer is not too rapid and disruptive.

(139) The first step would be to determine the number and scope of service baskets. This decision requires the regulator to weigh the desirability of providing greater pricing flexibility to the operator against the need to protect customers, particularly "captive" customer groups, from high prices.

(140) Pricing flexibility is an important advantage to operators of applying price cap schemes to a basket of services rather than individual products. In general, the broader the basket, the greater the operator's flexibility to move initial prices toward profit-maximising levels, and to adapt prices to competitive changes in the market.

(141) Separate baskets can be used to give different degrees of pricing flexibility to different service categories. For example, the initial price cap plan in the United Kingdom used separate price caps to address the problem of low residential basic subscription rates. Residential access rates were placed in a separate basket, with an initial price cap index of inflation plus 2%. The price cap index for the SMP operator as a whole was initially inflation less 3%.

(142) This combination of caps allowed residential access rates to increase towards costs, while ensuring that aggregate regulated service prices fell in real terms.

(143) In the extreme, the operator could seek to reduce prices for more competitive services below costs, and increase prices for other services to compensate. Again, using a larger

number of smaller baskets will reduce the likelihood of anti-competitive cross-subsidisation. Alternatively, the regulator could protect competitors simply by putting some type of price floor in place.

(144) The application of these principles in The Bahamas will also be affected by the issues raised earlier in this consultation. Earlier sections discussed the possible introduction of plans which included lower line rental charges and charges for local calls. We also discussed possible changes to the 'calling party pays' charging principle.

(145) Both of these changes would be likely to protect lower income consumers. They may result in lower charges for users with a low volume of fixed line calls. They would also ensure that mobile users could more effectively control the costs of the services they use. It might then be desirable to ensure the interests of low income consumers were protected, possibly through the use of particular 'sub-baskets' in the price cap regime. This suggests that changes to the structure and incidence of charges would need to be determined prior to resolving the number and form of service baskets.

(146) In deciding on the number of service baskets the regulator may also consider other factors including:

- timeline for competition in the market for mobile services;
- whether compliance creates an undue burden for the regulated entity;
- simplicity of rate design;
- allowing the operator pricing flexibility so that it can respond to competitive pressure;
- discouraging anti-competitive pricing conduct (e.g. unfair cross-subsidy between competitive and un-competitive services), and
- moderating the rate of price increase for the monthly access for residential customers.

Question 22: Do you agree with the views expressed above on the use of baskets of services in retail price control regulation? Do you have views on the appropriate form of the tariff baskets to be used?

E. RESPONDING TO THIS CONSULTATION

Written submissions from the public and interested parties are invited on the questions set out in this document, to be made by 5pm on [17 July 2009].

Submissions can be made by email to consultation@btcprivatisation.com and should be in either PDF or Word format. Alternatively, submissions may be posted or faxed to the address below, marked with the title of the consultation.

Communications Consultation
c/o KPMG
5th Floor Montague Sterling Centre
East Bay Street
P.O. Box N.123
Nassau, Bahamas

Fax: +1 242 393 1772
Tel: +1 242 393 2007

Note that hard copies do not need to be submitted in addition to an electronic version. Acknowledgements of receipt of responses will not be issued.

It would be helpful if your submission could include direct answers to the questions asked in this document, which are listed together in Appendix 1. You should feel free to answer whichever questions you want to. It is not necessary to answer each and every question. Please indicate the number of each question you are responding to. It would also help if you can explain in your submission why you hold your views and how these proposals would impact on you.

If you need advice on the appropriate form of response, please call KPMG, referencing the consultation, at +1 242 393 2007, and you will be put through to a person who can assist you.

Confidentiality

It is important for everyone interested in an issue to see the views expressed by consultation respondents. All responses will be published on www.btcprivatisation.com or a summary of such responses. Please do not submit any information that is confidential or commercially sensitive to your business. Please also note that copyright and all other intellectual property in responses will be assumed to be licensed to the Government's use.

APPENDIX 1 – Consultation questions

Question 1: Is there a need for further tariff rebalancing in the Bahamas?

Question 2: Do you agree that the regulator should design a price regulation framework that enables tariff rebalancing? If you disagree, please state your reasons.

Question 3: Are there benefits from introducing an option for monthly line rental at a lower price which excludes free local calls? If so, what type of plans for charged local calls would be most appropriate?

Question 4: Should The Bahamas move to a caller-pays principle for all calls? If you disagree, please state your reasons.

Question 5: Do you agree that the historical approach to retail price regulation should be reformed in the newly liberalised environment? If you disagree, please state your reasons.

Question 6: Do you agree with the objectives proposed for price control regulation? If you disagree, please state your reasons.

Question 7: Do you agree with the Government's view that wholesale price regulation alone may not be sufficient to protect consumer interests in the present and near future?

Question 8: Do you agree with the proposal to adopt price cap regulation? If you disagree, please state your reasons.

Question 9: Do you agree with the proposal to introduce an Interim Pricing Framework in the short term? If you disagree, please state your reasons.

Question 10: What principles should underpin any Interim Pricing Framework for retail price regulation and on the nature of the interim arrangements?

Question 11: Do you agree with the proposed regulation of special offers and discounts? If you disagree, please state your reasons.

Question 12: Do you agree with the proposed form of the price cap shown above? Do you have views based on experience with price cap regimes on the application of a price cap with this broad form?

Question 13: Do you agree with the use of a 'building blocks' regime to determine starting prices under the price cap?

Question 14: Do you agree with the use of CPI within the price control formula? If you disagree, please state your reasons.

Question 15: Do you agree with the proposed use of the prior year's inflation rate as measured in the All Bahamas Price Index? If you disagree, please state your reasons.

Question 16: Do you agree with the use of an X-factor to reflect expected productivity gains over the period?

Question 17: What price control period do you think should be used? Do you believe that the appropriate price control period is affected by the proposed phasing in of competition in The Bahamas?

Question 18: Should a Z factor be included? If a Z factor is included what are some of the exogenous occurrences that should be considered?

Question 19: Do you agree that quality control incentives should be built into price control regulation? What are the relevant key performance indicators (KPIs) that you consider could be utilised for monitoring quality?

Question 20: Should operators be able to carry over out-performance in early years into the later years within the same price control period?

Question 21: Do you agree with the initial thinking on the provision of information for use in price control regulation?

Question 22: Do you agree with the views expressed above on the use of baskets of services in retail price control regulation? Do you have views on the appropriate form of the tariff baskets to be used?

APPENDIX 2 – BENCHMARKING STUDY

Benchmarking methodology

(147) The Advisors to the Committee have compared prices[13] for representative services in each of the following product groups:

- residential fixed line;
- business fixed line;
- prepaid mobile;
- postpaid mobile;
- broadband internet; and
- Pay TV.

(148) BTC's prices have been compared for fixed and mobile services, and CBL's prices for broadband internet and pay TV. Prices have been compared to those of the incumbent operators in other small island economies: Cayman Islands, Malta, Guernsey, and Jamaica. There are of course differences between each operator in the degree of market power they possess and in the strength of their respective regulators. These factors have not been accounted for in the data.

(149) We have described the differences in the services being compared and the different approaches to the allocation of charges between the receiving party and the calling party. However we have not attempted to adjust prices to reflect these material differences between the comparator countries.

(150) All prices are inclusive of tax. For Lime Jamaica, 16.5% tax has been added to prices quoted by the operator. The Bahamas and Cayman Islands do not have any sales tax. Prices in Malta and Guernsey are quoted by the operators inclusive of tax.

(151) All prices are quoted in US dollars[14].

Fixed line

(152) The analysis is complicated by bundling of services. For example, residential fixed line rental from Lime in Jamaica is packaged with the first 60 minutes of domestic calls bundled for free. For both residential and business fixed line product groups, we have looked at the

[13] Information has been collected from public sources such as operator websites and information supplied to the regulator

[14] Simple (i.e. not purchasing power parity) exchange rates quoted on www.oanda.com on 19 May 2009 were used. We have also analysed the impact of using purchasing power parity exchange rates.

monthly line rental for the most basic fixed line service, i.e. we have sought to find products with no bundled minutes. Notes to the data highlight the approach taken for individual countries in the comparison.

(153) The analysis does not compare connection fees because:

- They are an up front cost. To accurately include them in line rental one would need to spread them over the entire duration of the service; and
- They are not always readily available.

Where connection fees are known they are mentioned in the notes.

(154) The Bahamas does not have different call charges for calls made at "peak" or "off-peak" times. Operators in some other countries offer a variety of rates for variously defined peak times (usually linked to 'office hours') and a number of defined off-peak times that may apply including mornings, evenings, overnight or weekends.

(155) When comparing the cost of calls, the analysis compared Bahamian rates to the cost of a peak call. Although peak times change between countries, and, as in the case of The Bahamas, may apply at all times, these were considered the most comparable. In addition, the highest majority of calls are likely to be made during peak times. Peak rates also represent the maximum a customer could expect to pay for a call if they did not deliberately time their call to take advantage of off-peak rates.[15]

(156) However it should be recognised that where other countries provide both peak and off-peak rates, the comparison between The Bahamas and their peak rate may overstate the comparative prices in The Bahamas.

Mobile

(157) Mobile services have a larger number of relevant components that need to be considered in benchmarking exercises. For example some or all of the following will be important in determining the value of a service:

- Monthly subscriptions;
- Cost of calls;
- Cost of text messages;
- Cost of multimedia messages;

[15] The alternatives to this approach would be to compare peak and off-peak calls separately or weight peak and off-peak rates to construct an index. Comparing peak and off-peak calls separately would be difficult because some countries, e.g. Malta, have a number of off-peak rates. Constructing an index would need some weighting function. This could be based on call volumes at certain times, but these vary between countries as people adapt their calling patterns to take advantage of cheaper rates where they are offered.

- Cost of data sent and received; and
- Handset subsidies.[16]

(158) Most postpaid mobile services that were considered came with combinations of free bundled minutes and texts. The possible combinations for bundling free minutes, texts and data into monthly subscriptions means that it is much harder to match postpaid mobile services between operators to allow for like-for-like comparisons.

(159) For postpaid mobile services, the analysis focuses on three packages offered in The Bahamas. These are designed for low, medium or "average" and high usage respectively. The 'low' package comes with 150 free local minutes, the medium with 650 and the high with 1,100. Similar packages were sought from other operators, although matches were imperfect. Specific details are given of the bundled services in the tables.

(160) The cost of placing a call from a mobile phone can vary depending on whether the call is to a fixed line or another mobile, and whether the call is to the same network ('on net') or to a different network ('off net'). For the purposes of comparison we have selected calls to fixed landlines. Comparing mobile-to-mobile call charges where off-net and on-net rates differ may not be comparing like-for-like if the operator in one country enjoys a monopoly (and so only on-net rates are valid) whilst in another country there may be several operators competing in the market (so off-net rates are relatively more important). Contrastingly, calls to domestic fixed lines are normally priced at the same rate, and where off-net and on-net rates differ the majority of calls will be to the incumbent fixed line operator. The notes give specific details for each operator.

(161) Some Caribbean operators charge mobile receivers for receiving as well as placing calls. The current charging regime in Cayman Islands and Jamaica is Calling Party Pays for both fixed and mobile calling. In both Malta and Guernsey, charges are only made for calls placed. This is an important difference to highlight, as it reduces the overall cost of the service compared to those countries where some services for mobile users are charged on a receiver party pays basis.

Internet

(162) Similarly to postpaid mobile, three different services offered by each internet operator are compared. These correspond to low, medium and high speed. The exact speeds offered by each operator do not exactly match, however the closest match has been selected in each country.

(163) As with other products, multiple components are important when attempting to compare like-for-like. The analysis focuses on download speeds as these are perceived as being the most important aspect; however upload speeds and contention ratios are also important.

[16] There are no handset subsidies in The Bahamas, but these are common in other countries. Operators do not charge new customers the full cost of the handset but recoup this cost through higher usage and rental charges.

Specific details of upload speeds are given in the notes. Contention ratios were not available from most operators.

Pay TV

(164) For subscription television the analysis draws a comparison based on the most basic service available. The value of the service depends on the quality of the channels received, and not just the number. A "channel" might represent a radio station, a shopping channel, a sports channel, an entertainment channel, a text information channel, a TV-guide channel, or another channel with an hour delay. Assessing the relative value of these different channels is challenging and subjective: hence for simplicity the most basic service is benchmarked.

(165) Guernsey is removed from the pay-TV analysis because in Guernsey TV licences[17] are paid to the BBC in the UK. These must be paid by anyone using a television to view television as it is broadcast, and allows individuals to watch analogue free-to-view channels. Pay-TV is also available from Sky TV via satellite. Subscribers also must pay the TV licence.

[17] Costing £142.50.

Fixed Line: Residential

RESIDENTIAL FIXED LINE	**Units**	**Bahamas**	**Cayman**	**Guernsey**	**Jamaica**	**Malta**
		BTC	***Lime (C&W)***	***Sure (C&W)***	***Lime (C&W)***	***GO***
Line Rental	$ per month	15	15.93	12.17	9.48	8.8
Notes		*Connection charges start at $50*	*$245 deposit, wavered if paying by direct debit.*	*$106.58 connection charge.*	*Includes 60 minutes of domestic calls. $8.94 installation charge. There is also a low user plan available for $4.61 per month with more expensive prices per call.*	*$23.60 Connection charge.*
Local Calls to fixed line	cents per minute	0	2.5	*7.3 for unlimited length local calls*	1.3	0.01
Notes		*Calls to the same island anytime.*	*11 for 1st minute. No local distinction.*	*Calls within Guernsey*	*No local distinction. See notes below*	*No local distinction. See notes below.*
National Calls to fixed line	cents per minute	18	2.5	*6.1*	1.3	n/a
Notes		*Calls between islands anytime.*	*11 cents for the first minute.*	*Calls to Jersey and mainland UK.* *Applies Mon – Fri 8am – 6pm. Saturday and evenings rate 5.3 cents; Sundays rate 3.8 cents*	*0.9 cents off peak and weekend rate.*	
Calls to the US	cents per minute	47	42.9	7.5	21.3	22.2

RESIDENTIAL FIXED LINE	**Units**	**Bahamas**	**Cayman**	**Guernsey**	**Jamaica**	**Malta**
		BTC	***Lime (C&W)***	***Sure (C&W)***	***Lime (C&W)***	***GO***
Notes		*Anytime*	*Applies Mon-Fri 8am to 6pm. 30.6 cents evenings and weekends.*	*Anytime*	*Mon - Fri, 8am to 6pm*	*M-F, 8am to 6pm*
Calls to UK	cents per minute	85	42.9	9.6	21.3	9.5
Notes		*Anytime*	*Applies Mon-Fri 8am to 6pm. 30.6 cents evenings and weekends.*	*Anytime. Cost of calls to France, as UK included in "national"*	*Mon - Fri, 8am to 6pm*	*M-F, 8am to 6pm*
Calls to Barbados	cents per minute	66	n/a.	30.5	21.3	3.3
Notes		*Anytime*	Not published on website	*Anytime*	*Mon - Fri, 8am to 6pm*	*M-F, 8am to 6pm*

Fixed line: Business

BUSINESS FIXED LINE	Units	Bahamas	Cayman	Guernsey	Jamaica	Malta
		BTC	***Lime (C&W)***	***Sure (C&W)***	***Lime (C&W)***	***GO***
Line Rental	$ per month	36	n/a	36.50	21.68	21
Notes		*Connection charges start at $100*	*Not published on website*	*$106.58 connection charge*	*$12.74 installation charge*	
Local Calls to fixed line	cents per minute	0	n/a	7.3 for unlimited length local calls	1.3	1.8
Notes		*Calls to the same island anytime.*	*Not published on website*	*Anytime*	*No local distinction. See notes below*	
National Calls to fixed line	cents per minute	18	n/a	6.1	1.3	n/a
Notes		*Calls between islands anytime.*	*Not published on website .*	*Calls to Jersey and UK. Applies Mon – Fri 8am – 6pm. Saturday and evenings rate 5.3 cents; Sundays rate 3.8 cents*	*0.9 cents off peak and weekend rate.*	
Calls to the US	cents per minute	47	42.9	7.5	21.3	24
Notes		*Anytime*	*Applies Mon-Fri 8am to 6pm. 30.6 cents evenings and weekends.*	*Anytime*	*Mon - Fri, 8am to 6pm*	*Applies Mon-Fri 8am-6pm. 35.1 cents 8pm-10pm every day*
Calls to UK	cents per minute	85	42.9	9.6	21.3	1.04
Notes		*Anytime*	*Applies Mon-Fri 8am to 6pm. 30.6 cents evenings and weekends.*	*Anytime. Cost of calls to France, as UK included in "national"*	*Mon - Fri, 8am to 6pm*	*M-F, 8am to 6pm*

BUSINESS FIXED LINE	**Units**	**Bahamas**	**Cayman**	**Guernsey**	**Jamaica**	**Malta**
		BTC	***Lime (C&W)***	***Sure (C&W)***	***Lime (C&W)***	***GO***
Calls to Barbados	cents per minute	66	n/a	30.5	21.3	3.6
notes		*Anytime*	*Not published on website. International calls; 98 to most countries.*	*Anytime*	*Mon - Fri, 8am to 6pm*	*M-F, 8am to 6pm*

Mobile: Prepaid

PREPAID MOBILE	**Units**	**Bahamas**	**Cayman**	**Guernsey**	**Jamaica**	**Malta**
		BTC	***Lime (C&W)***	***Sure (C&W)***	***Lime (C&W)***	***GO***
National Calls to fixed line	cents per minute	33	30.6	22.8	10.8	21.6
notes		*Mon – Fri, 7am – 7pm. 15 cents off peak*	*M-F, 8am to 6pm, 25 night, 18 weekend, Off network 43.day, 37 night, 31 weekend*	*7am – 7pm. 18.3 Off Peak*	*Anytime. Based on Anytime plan.*	*Anytime. Local calls only.*
Calls to the US	cents per minute	47	n/a	53.3	n/a	63
notes		*Anytime*	*Not published on website*	*Anytime*	*Not published on website*	*Applies Mon-Fri 8am – 8pm. 75.5 off peak.*
Calls to UK	cents per minute	85	n/a	53.3	n/a	n/a
notes		*Anytime*	*Not published on website*	*Anytime. Cost of calls to France, as UK included in "national"*	*Not published on website*	Not published on website.
Calls to Barbados	cents per minute	66	n/a	114.2	n/a	n/a
notes		*Anytime*	*Not published on website*	*Anytime*	*Not published on website*	

Mobile: Postpaid

Postpaid Mobile Package	Monthly Fee ($ per month)	Bundled Minutes	Bundled Texts	Bundled Data	National Calls (cents per minute)	Calls to US (cents per minute)	Calls to UK (cents per minute)	Calls to Barbados (cents per minute)	Notes
The Bahamas – BTC									
Low	19.99	100	-	-	20 *10 cents per minute 7pm - 7am; 15 cents per minute weekends*	47	85	66	*Service activation $15. Standard Service deposit $200 with existing BTC account; $300 without*
Medium	99.99	650	100		15 *10 cents per minute 7pm-7am and weekends*	47	85	66	
High	139.99	1100	300		10 *Anytime*	47	85	66	
Cayman Islands – Lime (C&W)									
Low	36.75	150	50	-	24.5 *calls to other Lime customers. Off net 30.6 cents*	*Not published on website*			

Postpaid Mobile Package	Monthly Fee ($ per month)	Bundled Minutes	Bundled Texts	Bundled Data	National Calls (cents per minute)	Calls to US (cents per minute)	Calls to UK (cents per minute)	Calls to Barbados (cents per minute)	Notes
Medium	73.50	500	100	-	24.5 *calls to other Lime customers. Off net 30.6 cents*	*Not published on website*			
High	96.78	850	150	-	24.5 *calls to other Lime customers. Off net 30.6 cents*	*Not published on website*			
Guernsey – Sure (C&W)									
Low	30.46	100	100	10 picture messages	0.152 *Calls to off-net mobiles 22.8 cents. UK mobiles 30.5 cents*	38.1 *Anytime*		114.2 *Anytime*	*Bundled minutes and texts based on 12 month contract. 18 and 24 month contracts double bundled minutes and texts*
Medium	76.14	500	500	500kb; 50 picture messages	0.152 *Calls to off-net mobiles 22.8 cents UK mobiles 30.5 cents*	38.1 *Anytime*		114.2 *Anytime*	

Postpaid Mobile Package	Monthly Fee ($ per month)	Bundled Minutes	Bundled Texts	Bundled Data	National Calls (cents per minute)	Calls to US (cents per minute)	Calls to UK (cents per minute)	Calls to Barbados (cents per minute)	Notes
High	114.21	800	800	800kb; 80 picture messages	0.152 *Calls to off-net mobiles 22.8 cents UK mobiles 30.5 cents*	38.1 *Anytime*	30.5 *45.7 cents to mobiles. Calls to France as UK included in national rates.*	114.2 *Anytime*	
Jamaica – Lime (C&W)									
Low	9.47	-	-	-	5.4 *mobile to fixed. Mobile to mobile (on-net) 16.3 cents*				
Medium	23.02	*600 free minutes, 90 free other network minutes and 90 international minutes and 90 texts; free voicemail*	90	-	5.4 *mobile to fixed.*				

Postpaid Mobile Package	Monthly Fee ($ per month)	Bundled Minutes	Bundled Texts	Bundled Data	National Calls (cents per minute)	Calls to US (cents per minute)	Calls to UK (cents per minute)	Calls to Barbados (cents per minute)	Notes
High	94.83	*2,500 fee minutes, 300 free other network minutes and 1,000 international minutes and 1,000 texts; free voicemail*	1,000	-	5.4 *mobile to fixed.*				
Malta – GO									
Low	26.96	60 *Any network – or 150 to GO fixed and mobile*	-	-	-	63	-	-	*Free phone*
Medium	53.92	180 *Any network – or 360 to GO fixed and mobile*	-	-	-	63			
High	80.89	300 *Any network, or 600 to GO fixed and mobile*	-	-					

Internet[18]

INTERNET SERVICE	Units	Bahamas	Cayman	Guernsey	Jamaica	Malta
		CBL	***Lime (C&W)***	***Sure (C&W)***	***Lime (C&W)***	***GO***
Low	$ per month	21.7	61.25	n/a	29.95	n/a
Notes		*1.5Mbps download. Unlimited access, 256kbps upload.*	*1 Mbps download. 512kbps upload. 1 year contract.*	*No comparable service*	*1 Mbps download. 256kbps upload.*	*No comparable service*
Mid	$ per month	38.7	84.53	38.06	34.95	18.68
notes		*3Mbps download. Unlimited access, 512 kbps upload.*	*2 Mbps download. 512 kbps upload. 1 year contract.*	*2Mbps.*	*2 Mbps download. 512 kbps upload*	*2 Mbps download. Unlimited usage; 90 day subscription*
High	$ per month	70.7	133.53	121.81	49.95	94.37
notes		*9 Mbps download. Unlimited access, 1Mbps upload.*	*4 Mbps download. 512kbps upload. 1 year contract.*	*8 Mbps.*	*4 Mbps download. 768kbps upload*	*20 Mbps download. Unlimited usage; 90 day subscription*

[18] Contention ratios should ideally also be considered but these were not available from the sources we used with the exception of Guernsey, where contention ratios were 40/1.

Television[19]

TELEVISION PACKAGE	Cost	Number of Channels	Notes
The Bahamas - Cable Bahamas			
Basic Cable	$30	48 / 54	Number of channels depends on island.
Digital 125	$65.95	125+	Can rent digital boxes for $5 per month, or buy from $149.95.
Digital 150	$73.95	150+	
Digital 175	$83.95	175+	
Cayman Islands - West Star TV			
Limited Basic	$73.50	46 (plus 49 music)	Month
Basic	$73.50	46 (plus 49 music)	Month
Malta – GO			
Free	$3.14	17	24 month minimum. If cancelled before this then remaining balance of the respective monthly payment is payable.
Silver	$18.85	38	
Gold	$31.40	54	
Malta – Melita			
M	$10.46	24 (plus 33 music)	$116.19 connection charge
L	$22.90	66 (plus 61 music)	
XL	$40.43	93 (plus 61 music)	
Jamaica - Flow Jamaica			
Flow lifeline	$10.16	58	$40.58 one off installation fee
Flow 125	$22.36	148	
Flow 150	$30.15	190	
Flow 175	$42.68	218	
Flow Complete	$60.90	272	

[19] Packages highlighted in blue represent base services. Guernsey is not included because TV licence fee of £142.50 annually payable to the BBC allowing free analogue channels. Sky TV subscriptions also available via satellite, although requires TV licence.