



Price Caps Consultation Document

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Telecommunications Commission**

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1 Background and Purpose

The Telecommunications Commission (the “Commission”) was formed following the enactment of the Telecommunications Ordinance in 2004 (the “Ordinance”), based on the Government’s liberalization agenda pursuant to its Telecommunications Policy published in 2003 (the “Policy”).

Starting in late 2005 the Government brought into force a series of regulations, including the Telecommunications Pricing Regulations and the Telecommunications (Administrative Procedure) Regulations (respectively, the “Pricing Regulations” and the “Administrative Regulations”). Together with the Ordinance, these regulations constitute a comprehensive regulatory framework for the telecommunications sector in the Turks and Caicos Islands (“TCI”).

With a view to its liberalization agenda, in January 25, 2006, the Government signed an agreement with Cable & Wireless (the “C&W Agreement”) that resulted, inter alia, in the issuance of a new, non-exclusive licence to that entity on that same date (the “C&W Licence”).

1.1 Expiry of Initial Regime

The Pricing Regulations were gazetted on December 30, 2005, and came into force January 1, 2006. These stipulate, inter alia, that within 180 days of their adoption, the Commission shall commence a process to establish an “initial” price cap regime to regulate the prices for services in which a licensee has been found dominant. In this context, the Commission approved the Price Cap Regime that was incorporated in the C&W Agreement and the C&W Licence (the “Initial Regime”). That Initial Regime was established for a period of three years after the signing of the C&W Agreement – i.e., January 25, 2006 to January 24, 2009.

In accordance with Annex C of the C&W Licence, following the expiry of the Initial Regime, “the Licensee shall set prices in accordance with section 27 of the Telecommunications Ordinance and the long-term incentive-based (which may be a price cap or an other) regime, as specified in the Regulations.”

1.2 Consultation Process

Pursuant to the Pricing Regulations and the general objectives of the Administrative Regulations,¹ the Commission is initiating the current consultation process to assist it in determining a new Price Cap Regime (the “New Regime”) to replace the Initial Regime after its expiry. The Commission notes that it has engaged the services of Consultants to assist it in the consultation process and in the design and formulation of the New Regime. The Commission shall conclude this process by issuing a decision putting in place the New Regime (the “New Regime Decision”).

¹ More specifically, Sections 5(3) and 5(4) of the Pricing Regulations, among others, and the general objectives of the Administrative Regulations in relation to consultation processes, as reflected in Part II therein.

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This consultation process established by the Commission has two components:

- The first component involves a public consultation process initiated by the issuance of this document (the “Consultation Document”), which identifies issues to be addressed in establishing the New Regime along with the Commission’s preliminary views on various elements of the New Regime. The Commission invites interested parties (“Respondents”) to provide their comments and proposals (the “Responses”) with respect to the issues raised in this Consultation Document and any other issues of relevance to the establishment of the New Regime. As part of the public consultation process, the Commission and/or its Consultants may meet with Respondents to review and discuss their submissions in greater detail. The Commission shall take all of these comments and discussions into account in preparing the New Regime Decision.
- The second component involves a review and assessment of C&W’s past, current and projected operating and financial performance. In this regard, the Commission has initiated a data collection process through which it is collecting detailed historical information on C&W’s TCI-specific operating revenues, expenses, investments and profits on a service-by-service basis, along with output and input price and volume information.² It should be noted that the detailed company-specific financial and operating information being collected through this data collection process is confidential in nature and that its public release would likely cause C&W specific and direct harm. Therefore, the data collected through this process will be maintained in strict confidence by the Commission and its Consultants. The Commission and its Consultants expect to meet with C&W to review and discuss all data collected through this process and its use for establishing the parameters of the New Regime. The Commission shall take all this information and the related discussions with C&W into account in preparing the New Regime Decision.

1.3 Public Consultation Process

This Consultation Document, along with all referenced Government and Commission documents, is available on the Commission’s website at <http://www.tcitelecom.gov.tc>.³ Respondents who wish to express opinions on this Consultation Document are invited to submit their Responses in writing to the Commission. Responses shall also be submitted in electronic form to facilitate further distribution and posting on the Commission’s website.

All Responses must be received by the Commission no later than 3:30 p.m. on Friday November 7, 2008.

Responses filed in relation to this Consultation Document may be submitted to one or more of the following addresses:

² This data collection process was initiated on August 7, 2008 at which time the Commission issued an initial data request to C&W. As of the date of this Consultation Document, C&W has responded in part to the initial data request. The Commission expects that C&W will respond to the balance of the information set out in the initial data request as well as any other data requests submitted by the Commission in the course of the current consultation process.

³ Note that the sole exception in this regard is the C&W Agreement of January 26, 2006, which includes confidential information.

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- a) E-mail to: consultations@tcitelecommission.tc
- b) Delivery (paper and electronic copy) by hand or by courier to:

Mr. Stuart MacPherson,
Director General
Turks and Caicos Islands Telecommunications Commission
Business Solutions Complex, Leeward Highway
Providenciales,
Turks and Caicos Islands

The Commission welcomes all Responses on the Consultation Document. The Commission invites comments and responses to the specific numbered “Questions” set out in this Consultation Document (the “Consultation Questions”) and any other issues Respondents consider relevant to the establishment of the New Regime.

The Commission encourages Respondents to support all Responses with relevant data, analysis, benchmarking studies and information based on the national situation or on the experience of other countries to support their comments. The Commission may give greater weight to Responses supported by appropriate evidence. In providing their comments, Respondents are requested to indicate the number of the Consultation Question(s) to which the comment relates. Respondents are not required to comment on all Consultation Questions. The Commission is under no obligation to adopt the comments of any Respondent.

Copies of all comments submitted by Respondents in relation to this Consultation Document will be published on the Commission’s website at <http://www.tcitelecom.gov.tc>. With a view to having as wide-open public consultation process as practical, the Commission encourages Respondents to structure their Responses in such a manner as not to include any confidential information.

If necessary, Respondents may submit Responses that include claimed confidential information in the form of two Responses:

- **Redacted Response** - whereby only any claimed confidential information is excluded from the document. The other comments and information, not claimed as confidential, would be included in this version. This is the document that would be posted on the Commission website;
- **Confidential Response** – this document would be identical to the Redacted Response other than that this version would also include the claimed confidential information.

Claims of confidentiality will be determined by the Commission on a case-by-case basis, and in compliance with the requirements set out in Section 19 of the Administrative Regulations.

2 Overview of Price Cap Regulation

Price cap regulation puts an upper limit (or “cap”) on the overall average level of prices for regulated services provided by a designated service provider over a specified number of years. It does this by applying a price cap index (“PCI”) formula (see Chapter 4) on the prices for a group or groups of regulated services (or “Price Control Basket(s)”).

The PCI has two main variables – an inflation factor (the “I-factor”) and a productivity factor (the “X-factor”):

- The **I-factor** is designed to permit the service provider to recover, in the form of a specified change in prices, some of its unavoidable annual input price changes. Given that, as in most of the economy, input prices to the service provider tend to increase over time, the application of the I-factor by itself would generally permit an increase in the overall average level of prices.
- The **X-factor** is designed to require that the service provider pass on to consumers, in the form of a specified change in prices, some of the service provider’s predicted annual productivity changes. Given that productivity tends to increase in the telecommunications sector, the application of the X-factor by itself would normally require a decrease in the overall average level of prices.

Taken together, if for any particular year the X-factor⁴ for a Price Control Basket is larger than the I-factor, the average level of prices for that particular Price Control Basket would decrease as a result of the application of the PCI. However, if the X-factor for a Price Control Basket is smaller than the I-factor, the average level of prices for that particular Price Control Basket would be allowed to increase pursuant to the PCI.

Price cap regulation provides a means to regulate prices over time, starting from the initial or “going-in” prices. Future price levels and resulting future financial performance for a price cap regulated service provider are highly dependent on the initial price levels. Therefore, it is critical to examine the initial level of prices so as to make any necessary adjustments to the price cap regime.

2.1 Price Caps as Incentive Regulation

Under price caps regulation, the service provider has an incentive to operate as efficiently as possible because the scheme allows the service provider to keep any increase in profits that result from its actual productivity performance being better than its predicted productivity (as reflected in the X-factor). In this manner, price cap regulation is one type of incentive regulation. This is in contrast to traditional rate-of-return (“ROR”) regulation wherein the service provider is not allowed to keep any profits in excess of the regulatory-determined rate of return (on debt and

⁴ As set out in the Chapter 5, a price cap regime could be designed to have different X-factors for different Price Control Baskets. Given that each Price Control Basket would be subject to the same I-factor, such an approach of having different X-factors would therefore result in different changes in the average level of prices for each of the Price Control Baskets.

equity), independent of its productivity performance. Further, in contrast to ROR regulation, under incentive regulation generally and price caps regulation specifically, the service provider is provided with relatively more flexibility to set its prices provided that it complies with the price caps formulae and other restrictions. Price cap regulation has emerged as the most popular form of incentive regulation around the world.

Incentive regulation is considered an improvement over traditional ROR regulation because it delegates certain pricing decisions to the service provider, and permits the service provider to retain profit increases from productivity gains above a target threshold (i.e., the established X-factor). By granting pricing decisions to the service provider, incentive regulation makes use of the service provider's information advantage over the regulatory agency and its profit motive. The regulatory agency, therefore, controls less of the service provider's behaviour, but rather rewards the outcomes.

2.2 Objectives of the Price Caps Regime

Often price cap regimes are implemented with a view to achieving a set of specified policy objectives. Such an approach can facilitate the design of a price cap regime, in terms of pricing flexibility and complexity, among other factors. Reference to the objectives can also facilitate the assessment of the performance of a price cap regime as its expiry nears.

The Initial Regime was established in compliance with the Ordinance and Pricing Regulations. However, a set of objectives for the price cap regime was not formalized at the time. In the New Regime, the Commission is considering formalizing a set of price cap objectives. These objectives could include, but would not necessarily be limited to, the following:⁵

- i) to foster the availability of reliable, affordable and high quality telecommunications services throughout the country;
- ii) to provide the service provider incentives to improve efficiencies, invest in new plant and equipment and be more innovative;
- iii) to provide the service provider with a reasonable opportunity to earn a fair return;
- iv) to ensure that consumers share in the expected efficiency gains through lower prices;
- v) to foster competition in the TCI telecommunications market; and
- vi) to minimize regulatory procedures to the greatest extent possible in keeping with the above-noted objectives.

Question #1: Please comment on the price caps objectives proposed above including, as may be applicable, suggested modifications to the listed objectives and/or alternative objectives.

⁵ Note that the following set of suggested objectives is based on objectives established for price cap regimes in other jurisdictions in the English-speaking Caribbean, and also takes into account the Policy.

3 Legal and Regulatory Framework

Regulatory theory generally requires that retail price regulation be limited to markets where there is insufficient competition to protect the interests of consumers, and that it be applied only to dominant service providers in those markets. In a summary overview of the main provisions in the Policy, Ordinance, Pricing Regulations, C&W Agreement and C&W Licence, therefore, it is important to review provisions related to dominance, price regulation generally and price caps specifically.

3.1 The Ordinance

In relation to dominance issues, Section 2 of the Ordinance defines a “dominant” licensee as one that “enjoys, either individually or jointly with others, a position of economic strength that enables it to behave independently of competitors and customers in any relevant market for telecommunications services”. Section 16 of the Ordinance sets out the process for the Commission to make a “dominant” determination for a particular licensee. Section 17 provides the Commission with the authority to establish a series of licence conditions for a dominant licensee.

With respect to price regulation issues, Section 27(1) of the Ordinance sets out the general principle that unless otherwise regulated by the Commission, prices shall be determined by providers based on “supply and demand in the market”. Section 27(2) sets out the general conditions under which the Commission may establish “rates regulations regimes”, and Section 27(3) sets out specifically that the Commission shall design an “incentive-based rated setting mechanism” in instances where the Commission finds that a provider is dominant in the provision of a service. Section 27(4) sets out that the Commission shall establish, monitor and ensure compliance with the regime set out in Section 27(3).

Section 28 gives the Commission the authority to decide to forbear from the regulation of prices when it finds “as a question of fact” that such forbearance would be consistent with the TCI policy objectives and that the service(s) in question “is or will be subject to competition sufficient to protect the interests of users”.

3.2 Pricing Regulations

Section 2 of the Pricing Regulations provides the key definitions for the establishment and administration of price cap regimes:

“Designated Licensee” means any service provider designated by the Commission as being dominant with respect to a telecommunications service in accordance with section 16 of the Ordinance;

“Price Cap Regime” means the regime for price cap regulation prescribed by these Regulations;

“Price Cap Regime Period” means a period of three to five Price Cap Years during which the Price Cap Regime is in force for any Designated Licensee;

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“Price Cap Services” means telecommunications services subject to the Price Cap Regime;

“Price Cap Year” means the initial year and each subsequent year in which the Price Cap Regime shall be in force for any Designated Licensee;

“Price Control Basket” means a basket (grouping) of Price Cap Services as determined by the Commission pursuant to section 4; and

“Price Control Formula” means the formula provided for in section 7.

Section 3 sets out that the Pricing Regulations “constitute the incentive-based rate setting mechanism” referred in Section 27(4) of the Ordinance. Specifically, the mechanism is applicable to service providers that have been determined to be dominant under Section 16 of the Ordinance for a specific service.

The rest of the sections provide a relatively detailed framework for the design, calculation and administration of price caps regimes. Section 4 establishes the general principle that “at all times, the charges for the Price Caps Services ... conform to these Regulations”. Section 5 focuses on the determination of the Price Cap Services, Section 6 focuses on procedural and other aspects of changes over time to the prices of the Price Cap Services and Section 7 focuses on the specific and detailed aspects of the Price Control Formula. Each of these sections is reviewed in greater detail in subsequent chapters below.

3.3 C&W Agreement

The C&W Agreement includes extensive provisions related to the “going in” prices for the Initial Regime. Specifically, Schedule 1 of the C&W Agreement provides a listing of certain services (the “Initial Regime Services”) and their corresponding prices that were to come into force sixty days after January 25, 2006 (the “Effective Date” of the C&W Agreement), as summarized below:

1, 2, 3. Line rental charges and domestic local call charges (residence and business)

Type Of Customer	Plan	Maximum Prices			
		Monthly Line Rental	Domestic Fixed-to-Fixed minutes included	Additional domestic Fixed-to-Fixed minutes	Domestic Fixed-to-Mobile (C&W) minutes
Business		\$45.00	0	\$0.15	\$0.50
Residential	Basic	\$20.00	0	\$0.15	\$0.50
Residential	bHome 500	\$35.00	500	\$0.05	\$0.50
Residential	bHome 800	\$40.00	800	\$0.05	\$0.50
Residential	bHome Unlimited	\$50.00	Unlimited	\$0.00	\$0.50

4. International direct dial (IDD) call charges for all users (residential and business)

Reduction of standard IDD rates of not less than 40% of the rates published 21 June 2005. Make available Smartchoice and 10-10-335 discount programs and Residential cHome 500, cHome 800, cHome Unlimited subscribers offered a “Talkaway” discount of no lower than 20% applicable to no less than 3, 4 or 5 nominated international numbers, respectively.

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5. Lifeline Service

Low income residential users, as determined by a reasonable means-related criteria established by the Government, will be entitled to monthly line rental not to exceed \$10 and domestic fixed-to-fixed rates of \$0.15 per minute (anytime).

6. Leased Lines

The Commission shall determine the rates for leased lines based on Cable & Wireless (sic). Until such determination shall become effective, Cable & Wireless shall maintain the leased line rates in effect as of the Effective Date.

3.4 C&W Licence

In relation to dominance issues, the C&W Licence sets out that C&W is dominant in the following services and networks, respectively (the “Dominance Finding”):

- 3.1 Domestic public telephone services provided over the Licensee's fixed network.
- 3.2 International public telephone services provided over the Licensee's fixed network.
- 3.3 Domestic and international leased line services provided over the Licensee's fixed network.
- [...]
- 1.5.1 Domestic fixed public telephone network (including with respect to the domestic termination of the international fixed public telephone network).

In relation to price caps issues, Annex C of the C&W Licence establishes the Initial Regime:

ANNEX C - PRICE CAP REGIME

- I.** For a three (3)-year period commencing with the Effective Date as defined in the Agreement (the "Interim Period"), the Licensee shall set rates as follows:
 - 1. The Licensee shall set prices in accordance with Schedule 1 to the Agreement.
 - 2. The Commission may authorize the Licensee to increase line rental charges and domestic local call charges above the rates set forth on Schedule 1 if, and only to the extent that, the Licensee can demonstrate, to the satisfaction of the Commission, that there is and remains an Access Deficit after the payment of any Access Deficit Charges, if any.
 - [...]
 - 5. The rates set forth on Schedule 1 will be allowed to automatically rise if inflation in the Turks and Caicos Islands exceeds an annualized rate of 7%. The inflation rate will be the most recent annual Consumer Price Index ("CPI") used by the Government in standard economic planning exercises. In the absence of publication of a CPI by the Government, the Commission will use the Consumer Price Index for All Urban Consumers (CPI-U), published monthly by the U.S. Department of Labor. The allowed percentage increase in revenue weighted average regulated rates will be equivalent to each basis point in excess of 7%. [...]
- II.** After the Interim Period, the Licensee shall set prices in accordance with section 27 of the Telecommunications Ordinance and the long-term incentive-based (which may be a price cap or an other) regime, as specified in the Regulations.

3.5 Initial Regime

3.5.1 Description

As summarized above, the Initial Regime is made up of provisions included in the C&W Agreement and the C&W Licence. The C&W Agreement includes the Initial Regime Services. Other retail services provided by C&W, including mobile services; data services (other than leased lines); enhanced or value added services (“VAS”), such as Voicemail and Caller ID, and Internet services, were not included in the Initial Regime. Further, no wholesale services were included in the Initial Regime. The C&W Agreement also includes the maximum “going-in” levels for each of the Initial Regime Services.

Annex C of the C&W Licence includes the provisions relating to how the individual maximum “going-in” prices of the Initial Regime Prices could be changed:

- Paragraph I.2 of Annex C sets out that the Commission may authorize an increase in the prices for line rental charges and domestic local calls if C&W demonstrates that there is and remains an Access Deficit⁶. There has not been an application by C&W to increase the prices of these services pursuant to this provision.
- Paragraph I.5 of Annex C sets out that the Commission shall authorize an increase in the prices of the Initial Regime Services if the inflation rate exceeds 7%. There has not been an application by C&W to increase prices of these services pursuant to this provision.

The Initial Regime may therefore be described as a simplified form of price caps regulation. For instance, the Initial Regime did not group services into Price Control Baskets, and hence there was no need for the construction of multi-service price indices (see below for a description of the PCI, API and the Principal Pricing Constraint). Rather, the Initial Regime included a service-by-service price increase mechanism based on a measure of inflation (the I-factor)⁷. There was no mechanism in the Initial Regime that would have required any regulated prices to decrease.

No specific X-factor was explicitly stipulated in the Initial Regime. Implicitly, it could be considered that the Initial Regime has an X-factor equal to the I-factor when the I-factor is at 7% or below and equal to 7% when the I-factor is above 7%. The Initial Regime did not include any of the other elements typically included in most price cap regimes around the world, as discussed in subsequent Chapters.

⁶ An “Access Deficit” is defined as follows in the C&W Licence: “the difference between the total cost to the interconnection provider for providing access services (which may include appropriate operating expenditures, depreciation, an appropriate return on capital employed, and mark-ups for contributions to fixed joint and common costs of providing access lines that originate at the customer’s network interface device and terminate in the line card and include the cost of the line card and subscriber sensitive portion of the exchange) and the revenues derived from providing that service (i.e. line rental fees), calculated in accordance with guidelines published by the Commission pursuant to section 25A of the [...] Ordinance”.

⁷ The Initial Regime defines the inflation rate as the “most recent annual Consumer Price Index (“CPI”) used by the [TCI] Government in standard economic planning exercises” and in the absence of such a publication, the “Consumer Price Index for All Urban Consumers (CPI-U), published by the U.S. Department of Labor.” The Commission has confirmed that the TCI Government does not publish a TCI-specific consumer price index.

3.5.2 Assessment of Initial Regime

An assessment of the Initial Regime can be made on a number of grounds – e.g., by considering the extent to which consumers may have benefited or been harmed under the regime, the extent to which C&W may have benefited or been harmed under the regime, the extent to which competition, more generally, may have been fostered or constrained by the regime and/or comparative international experience. The suggested set of price cap objectives listed in Chapter 2 also provides a framework for assessing the success of the Initial Regime. Ultimately, the Commission considers that the performance of the Initial Regime is an important factor to be taken into account in the design of the New Regime.

Question #2: Please provide an assessment of the performance of the Initial Regime based either on the proposed price cap objectives set out in Chapter 2 or, if preferred, on an alternative basis.

3.6 Proposed General Approach to New Regime

As just noted, the Commission is of the preliminary view that consideration of the performance of the Initial Regime should be an important factor guiding the development of the New Regime. In this respect, the Commission is also considering adopting a set of price cap objectives (as proposed in Chapter 2) for this same purpose, as well as taking into account international best practices, especially recent successful experience within the English-speaking Caribbean.

In the application of this best practice, however, the Commission notes that TCI, and C&W's fixed network in TCI, are relatively small by international and regional comparisons. This means that while many of the best practice principles are appropriate, their application may have to be modified in some respects to take into account TCI's relatively small size. This is an aspect of the proportionality principle, which calls for, inter alia, that the solution (for instance, in terms of time, data and resource utilization and simplicity of design, etc.) should be proportional to the size of the problem. It is the Commission's preliminary view that the principle of proportionality should apply to the process (including the public consultation aspects), design, definition and administration of the New Regime, and to that effect it has incorporated this principle into the analysis and preliminary recommendations, including in this Consultation Document.

Question #3: Please comment on the general approach the Commission should adopt for the purpose of establishing the New Regime, including, but not necessarily limited to, the guiding principles, objectives and/or practices and the application of the principle of proportionality.

4 Price Cap Formulae

There are a number of ways to express the price cap formulae. However, in countries where price caps regulation has been adopted, two main formulae and a principal pricing constraint have been developed and implemented. The two main formulae include (i) a price cap index (“PCI”) and (ii) an actual price index (“API”), representing a weighted index of the service provider’s prices. Normally, the API must at all times be equal to or below the PCI, which forms the “Principal Pricing Constraint”.

The Commission is of the preliminary view that the New Regime should be built around the standard formulae for PCI and API, subject to the principal pricing constraint. In the rest of this chapter we discuss in greater detail the principal pricing constraint, the PCI and the API, as well as the main components of the PCI, the I-factor and X-factor.

4.1 Principal Pricing Constraint

4.1.1 Context and Framework

In Chapter 2 we noted that one of the fundamental components of price caps regulation was the regulatory imposition of a constraint on how much the regulated service provider’s average level of prices for a particular Price Control Basket would be allowed to change. This principal pricing constraint has generally been expressed by the following formula:

(Equation #A)
$$API_{j,t} \leq PCI_{j,t} \text{ for all } t$$

where: t = Price Cap Year
j = Price Control Basket

That is, for each Price Control Basket j, the API for a particular Price Cap Year t must always be less than or equal to the corresponding PCI. Note that a Price Control Basket may include many services or as few as a single service.

There are no specific provisions in the Ordinance directly related to this type of pricing constraint. Section 6 of the Pricing Regulations, however, includes the general provision:

(7) Each Designated Licensee shall take all reasonable steps to ensure that, during any Price Cap Year, any changes in the prices of Price Cap Services comply with the requirements of the Price Cap Regime, specifically, that the weighted average overall prices for each designated Price Control Basket shall not exceed the price level for the Price Control Basket for the given Price Cap Year, as calculated in accordance with section 7,

Further, Section 7.1 includes the provisions related to the “maximum ... prices allowed ... during a given Price Cap Year”:

- (a) The Price Control Formula shall calculate the maximum weighted average prices allowed for Price Cap Services within each Price Control Basket during a given Price Cap Year.

The Pricing Regulations do not develop either of these general provisions into specific equations.

4.1.2 Proposal for New Regime

Consistent with international best practice and the general provisions included in the Pricing Regulations, the Commission is of the preliminary view that the New Regime should include the standard specification of the Principal Pricing Constraint as proposed in Equation #A.

Question #4: Please comment on the appropriateness of the Principal Pricing Constraint, as proposed in Equation #A.

4.2 Price Cap Index (PCI)

4.2.1 Context and Framework

There are a number of different specifications that can be used for an equation to create the price cap index, the PCI. There are no provisions in the Ordinance related to the formulation of the PCI. In Section 7 of the Pricing Regulations, the following related provision is set out:

- (c) The Price Control Formula shall be based upon the formula set out below and in accordance with this section 7:

$$[P(t) = P(o)[RPI - X + / - Z]$$

where:

P(t) is the current price level at the beginning of Price Cap Year t; P(o) is the price level at the beginning of the previous Price Cap Year; RPI is the relative percentage change in the United States Consumer Price Index; X is a Commission-determined productivity or efficiency factor; and Z is a factor to represent exogenous cost changes (i.e., changes in costs to the firm—up or down—that are not captured by changes in conventional inputs (labor, capital, and raw materials) and that are beyond the firm’s control).

Note that the equation above is quite general and requires further specification to be implementable, for instance, by adding a “1” to the right-hand side, and by adding a separate principal pricing constraint – as reflected in Equation #B below along with the Principal Pricing Constraint set out above in Equation #A.⁸

4.2.2 Proposal for New Regime

Consistent with international best practice, and the broad directions set out in Section 7 of the Pricing Regulations, the Commission is of the preliminary view that the standard specification should be used for the PCI:

⁸ Otherwise, the formula included in the Pricing Regulations could be interpreted to suggest that the prices in P(t) must be equal to those calculated in the right hand side. This would mean that the service provider may not have the flexibility to lower prices below the calculated levels, which is one of the key features and benefits of price cap regulation.

(Equation #B)

$$PCI_{j,t} = PCI_{j,t-1} * (1 + I_t - X_{j,t} +/- Z_{j,t})$$

where: t = Price Cap Year

j = Price Control Basket

I_t = I-factor for Price Cap Year t

X_{j,t} = X-factor for Price Control Basket j in Price Cap Year t

Z_{j,t} = a Commission approved exogenous-cost factor adjustment for Price Control Basket j in Price Cap Year t (see Section 6.3 below)

Question #5: Please comment on the appropriateness of the formula for the calculation of the PCI, as proposed in Equation #B.

4.3 Actual Price Index (API)

4.3.1 Context and Framework

There are a number of different specifications that can be used for an equation to create the actual price index, the API. In Section 7 of the Pricing Regulations, the following is set out:

- (b) Weightings for services within each Price Control Basket shall be based upon relative revenues.

4.3.2 Proposal for New Regime

Consistent with international best practice, and the broad directions set out in Section 7 of the Pricing Regulations, the Commission is of the preliminary view that following specific formula should be used for the API:

(Equation #C)

$$API_{j,t} = API_{j,t-1} * \left(1 + \sum_k \left[w_{j,k,t-1} * \left(\frac{P_{k,t}}{P_{k,t-1}} - 1 \right) \right] \right)$$

where API_{j,t} = for each Price Control Basket j, the proposed actual price index value for the current Price Cap Year, year t.

API_{j,t-1} = for each Price Control Basket j, the actual price index value at the beginning of the previous Price Cap Year, year t-1.

API_{j,t} = 100, when t = 0.

k = an individual service rate element in Price Control Basket j.

$P_{k,t}$ = the average price of the k^{th} rate element at the end of the current Price Cap Year, year t , where the average price is a time-period weighted price over the 12 months of the Price Cap Year.

$P_{k,t-1}$ = the average price of the k^{th} rate element at the end of the previous the Price Cap Year, year $t-1$. For the first annual compliance filing, P_{t-1} would be the price in effect immediately preceding the date the New Regime comes into effect. For each subsequent annual filing, P_{t-1} would be the average price from the preceding Price Cap Year.

$W_{j,k,t-1}$ = for each Price Control Basket j , the revenue weight for the k^{th} rate element during the previous Price Cap Year, year $t-1$, calculated as the ratio of revenue for the k^{th} rate element in the Price Cap Year to the total revenue for all services in the Price Control Basket j during the previous Price Cap Year, year $t-1$.

Question #6: Please comment on the appropriateness of the formula for the calculation of the API, as proposed in Equation #C.

4.4 I-factor

4.4.1 Context and Framework

In most economies, a number of different indices are used to measure inflation. For example, a consumer price index or retail price index (“CPI” or “RPI”, respectively) measures changes in the prices of goods and services purchased by typical consumers (e.g. food, passenger transportation, residential electrical power, etc.). A Producer Price Index (“PPI”) measures changes in the prices of goods and services purchased by different types of production industries (e.g. prices for labour, freight transport, industrial electrical power, etc.).

The I-factor may be developed based on existing inflation indices, or a new inflation factor may be calculated. Regulatory agencies that have implemented price cap regulation have identified a number of criteria for selecting an inflation index to be used as the I-factor, including the following:

- **Reflective of changes in the service provider’s costs.** Ideally, the I-factor should reasonably reflect changes in the service provider’s input costs.
- **Credible, published, independent source.** This is important if price cap regulation is to have credibility with all parties involved.

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- **Availability of forecasts.** Forecasts of inflation are a key variable in the modelling work associated with implementing the forward-looking approach to the calculation of the X-factors (see below).
- **Publication on a timely basis.** In order for the price cap formula to respond quickly to any changes in input costs, the I-factor should ideally be available with a lag of preferably 2 to 4 months.
- **Understandability.** There is significant benefit in including an I-factor that is easily understood not only by the telecommunications sector, but by the public at large.

As noted above, in proposing the basis for a price cap formula, the Pricing Regulations noted that the I-factor be calculated as “the relative percentage change in the United States Consumer Price Index”.

4.4.2 Proposal for New Regime

The Commission notes that the TCI Government does not publish a TCI-specific CPI or RPI, an economy-wide price index or GDP deflator or any other type of price index, such as a PPI.

This means that the Commission will have to propose a non TCI-specific measure for the I-factor. There are at least two general approaches to construct such a proxy measure. One approach is to use a single inflation index from another country. Another approach is to try to construct a composite index based on a combination of several inflation indices, possibly from different countries.

Having reviewed these approaches and the available options, the Commission is of the preliminary view that it should use a single inflation index from one country. Having reviewed the availability of options in the nearby English-speaking Caribbean and the USA, the Commission is of the preliminary view that the All Bahamas consumer price index (the “Bahamas CPI”) has the following characteristics that make it a relatively more appropriate choice for the I-factor:

- **Bahamas CPI is an appropriate proxy for a TCI consumer price index:**
 - **Similar level and structure of economic development.** Bahamas has a level of economic development (GDP per capita of approximately US\$20,000) comparable to that of the TCI (GDP per capita of approximately US\$16,000). The main economic activities of the Bahamas and TCI are tourism and offshore financial services.
 - **Similar currency and close trading relationship.** The Bahamas dollar (“BSD”) is pegged at parity with the US dollar (“USD”), the currency of the TCI. Hence it may be reasonable to expect any USD fluctuations-based changes in the costs faced by C&W in TCI to be reflected in corresponding BSD fluctuations. Further, the Bahamas and TCI are geographically close and are major trading partners.

- **Source, publication and availability of forecasts.** The Bahamas CPI is published by the Statistics Department of the Central bank of the Bahamas on a monthly basis. Annual forecasts of the Bahamas CPI are published by the IMF.

Question #7: Please comment on the proposal to use the Bahamas CPI as the I-factor. If you disagree with this proposal, please provide alternative proposals, including rationale.

4.5 X-factor

4.5.1 Context and Framework

In practice, there are a number of variations in the manner in which price caps regimes have been implemented around the world. Two of the most common are summarized below and relate to the manner in which the relevant X-factor(s) is determined:

- **Historical Productivity Approach.** In this approach, an estimate of the service provider's past productivity (for example, total factor productivity or "TFP") is used as a base estimate for the setting of the X-factors. This base estimate may be supplemented by a series of adjustments to take into account the different operating conditions expected in the future during the price cap regime, in comparison to the period during which the past productivity was calculated. This may include a competition adjustment or a consumer productivity dividend ("CPD"), among others. This approach has typically been adopted in countries that have a tradition of ROR regulation, which means that the overall level of prices to be included in the price caps regime has historically resulted in a reasonable rate of return. Hence, the service provider's going-in prices for a first price caps regime may reasonably be assumed to be at a level that results in a reasonable rate of return for the service provider. If this were not the case, then "going-in" rate adjustments would be required. In either case, under this approach there is typically no need or tradition for formal modelling or consideration of the regulated service provider's expected future rate of return for the services under the price caps regime.
- **Forward-Looking Approach.** Under this approach, and based on a formal forward-looking financial market model, the X-factor(s) is calculated in such a manner that the service provider is expected to be able to earn a specified rate of return for the relevant services during the price caps period. In the forward-looking financial market model, historical productivity (as a proxy for potential future productivity) is only one of many parameters that are forecast. Other forecast parameters include market size and growth, projected rate base, expense and revenues, projected profits, etc. This approach has similarities to ROR regulation in that there is a focus on the regulated service provider's rate of return. The difference is that under ROR regulation the service provider tends to be compensated for any developments (that may be expected to impact on profit) *ex-post*, while under this approach to price caps the different X-factors for the corresponding Price Control Baskets are set *ex-ante*, based on projections of such developments, in such a way that the service provider is thus expected to meet the rate of return target on the relevant services. In order to set the different X-factors for each of the Price Control Baskets, a going-in rate of return must be

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calculated for the service provider immediately prior to the initiation of the price cap regime. This approach has typically been adopted in countries that do not have a tradition of ROR regulation. Hence, it cannot be reasonably assumed that the regulated service provider's going-in prices for a first price caps regime are at a level that results in a reasonable rate of return – they could be “too high” or “too low”. Therefore, there is typically a need for formal modelling and consideration of the service provider's expected future rate of return for the regulated services under the price caps regime. This is normally done by formally modelling a rate of return glide path whereby it transitions from its going-in level to its calculated end-point over the Price Cap Period.

Section 7 of the Pricing Regulations stipulates the following with respect to the X-factor:

(2) The “X” factor in the Price Control Formula shall be determined by the Commission following public consultation, and shall be based upon a formula that evaluates the expected and appropriate level of productivity improvement by a Designated Licensee over time. This formula may take into account the following factors:

- (a) Existing and projected: revenues, financial and operating expenses, depreciation charges and capital employed;
- (b) Projected volume growth for Price Cap Services within the Price Control Basket(s) or sub-basket(s);
- (c) Cost/volume and asset/volume relationships;
- (d) Projected unit input cost changes;
- (e) Projected tax liabilities;
- (f) Weighted average cost of capital (WACC) in the Turks & Caicos Islands; and/or
- (g) Such other economic and business considerations as the Commission determines may appropriately reflect the real productivity gains to be expected from the regulated firm.

While not determinative, these provisions suggest that the Forward-Looking Approach is the preferred approach in the Pricing Regulations. This is because, inter alia, there is a heavy emphasis on projections in the future of key variables, an aspect that is exclusive to the Forward-Looking Approach and is not applicable to the Historical Productivity Approach.

4.5.2 Proposal for New Regime

There is no tradition of implementing ROR regulation in the telecommunications sector in TCI. Further, no formal modelling of C&W's going-in or expected rate of return was carried out in the context of the Initial Regime. Hence, there is no guarantee that the current going-in level of prices for the Price Cap Services results in a reasonable rate of return for C&W. Consistent with international best practice, and with the provisions of the Pricing Regulations, the Commission is of the preliminary view that it should calculate the X-factors based on the Forward-Looking Approach, as generally described above.

Question #8: Please comment on the appropriateness of using the Forward-Looking Approach, as described above, to calculate the X-factor(s). If an alternative approach is proposed, provide all relevant details of the approach and supporting rationale.

5 Services and Baskets

5.1 Price Cap Services

5.1.1 Context and Framework

The Pricing Regulations make clear that the primary consideration for the Commission to determine the Price Caps Services should be based on a finding of dominance. This is consistent with international best practice. As noted in Chapter 2, the Dominance Finding sets out that C&W is dominant over “domestic public telephone services,” “international public telephone services” and “domestic and international leased line services” provided over its fixed network as well as with respect to its “domestic fixed public telephone network”. It is important to note that while “public telecommunications service” and “public telecommunications network” are defined in the Ordinance, “public telephone services” or “domestic fixed public telephone network” are not defined therein or in other documents of the TCI regulatory framework. Hence, to give effect to the Dominance Finding, it will be necessary for the Commission to determine specifically which of C&W’s services should be included in the Dominance Finding.

The Pricing Regulations include the following provisions related to Price Cap Services:

Price Control Baskets

5. (1) The Commission shall determine, for each Designated Licensee, which telecommunications services shall be Price Cap Services and included in one or more Price Control Baskets for purposes of applying the Price Control Formula.

[...]

(4) The Commission shall review the Price Cap Services included in each Price Control Basket at the end of each Price Cap Regime Period.

(a) Such review shall include a public consultation in such manner as the Commission may determine.

(b) If, after such consultation, the Commission determines, pursuant to section 16(3) of the Ordinance, that the Designated Licensee is no longer dominant in relation to one or more Price Cap Services included within a Price Control Basket, then such service shall no longer be a Price Cap Service and shall be thereafter excluded from the relevant Price Control Basket.

5.1.2 Proposal for New Regime

Consistent with the Pricing Regulations and international best practice, the Commission is of the preliminary view that the Price Caps Services for the New Regime should be based on the services included in the Dominance Finding. Moreover, the Commission has not received a petition from C&W pursuant to section 16(3) of the Ordinance to modify the Dominance Finding included in the C&W Licence. Thus, the Commission is of the preliminary view that the Dominance Finding will continue to be appropriate for the immediate to medium term.

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Question #9: Please comment on the view that the Price Cap Services for the New Regime should be based on the services included in the Dominance Finding.

Starting with the Initial Regime Services as a base, the rest of this section builds up a proposed list of specific Price Cap Services. As noted above, the list of Initial Regime Services is somewhat smaller than the list of services that could reasonably be included in the Dominance Finding. For instance, in relation to leased lines, the Initial Regime Services list includes the general category “leased lines”. While it does not stipulate whether this relates to domestic or international leased lines or both, the Dominance Finding is very explicit in this regard in that it includes “domestic and international leased line services”.

The network-related Dominance Finding includes the following note: “including with respect to the domestic termination of the international fixed public telephone network”. The Commission notes that international inbound calling is not a traditional retail service (i.e., with an explicit retail rate charged to consumers) and hence may not be appropriate to include as a Price Caps Service subject to price controls. While local access service customers are explicitly charged for outbound international calls, local access service also includes the ability to receive inbound international calls (at no charge to the customer). Nevertheless, the service provider receives revenues and incurs costs with respect to the provision of both outbound and inbound international calls. Following the Forward-Looking Approach described in Section 4.5.1, the revenues, expenses, capital employed and profits associated with the provision of both outbound and inbound international calls could be taken into account for price cap modeling purposes (setting price cap parameters such as the X-factor(s), etc.), despite the fact that there is no explicit retail rate associated with inbound international calls.

Overall, the Commission is of the preliminary view that the following services should be included in the New Regime:

1. business and residential access installation charge;
2. business and residential access;
3. domestic (fixed-to-fixed) calling;
4. domestic (fixed-to-mobile) calling (net receipts);
5. international (outbound) standard calling (net of outpayments);
6. international (outbound) discount calling (net of outpayments);
7. domestic leased lines
8. international leased lines
9. enhanced services/VAS (associated with fixed access lines, including but not limited to Voicemail, Caller ID, etc.)
10. payphones
11. others, if any, to be determined

Question #10: Please comment on the appropriateness of the proposed Price Cap Services for the New Regime, as listed above.

5.2 Price Control Baskets

5.2.1 Context and Framework

Having selected the Price Cap Services, the structure of the price cap regime should be determined, including the number of Price Control Baskets, the assignment of Price Cap Services therein, and the treatment of the different Price Control Baskets with respect to the corresponding X-factors.

As noted above, one of the features of price cap regulation is that the service provider maintains a reasonable degree of pricing flexibility. Nevertheless, there are a number of reasons for the regulatory agency to place limits on pricing flexibility. Such limits can be implemented through the creation of more than one Price Control Basket. Separate Price Control Baskets can be used to give different degrees of pricing flexibility to different service categories, particularly where initial prices do not reflect underlying cost differences. The number of Price Control Baskets will depend on a number of criteria, including the desirability of providing greater pricing flexibility to the service provider against the need to protect customers. For example, if residential and business services were placed in the same Price Control Basket, the service provider could lower business prices while raising residential prices.

The following are general criteria for the number of Price Control Baskets and the assignment of Price Cap Services therein:

- The similarities and/or differences in the price/cost relationship of the various Price Cap Services;
- The homogeneity and/or heterogeneity of the Price Cap Services, including with respect to demand price elasticities, and to the type of consumer to which it is targeted (e.g. residential/business, etc.);
- The degree of substitutability of Price Cap Services; and,
- The simplicity/complexity of the price cap plan and the degree of pricing flexibility provided to the service provider.

There are no provisions in the Ordinance directly-related to Price Control Baskets. Section 5 of the Pricing Regulations has the following provision:

(2) The Commission shall publish in the Gazette for public comment its initial determination of a Designated Licensee's Price Control Baskets.

Recall that the overall objective of the Forward-Looking Approach is to calculate one or more X-factors, as the case may be (see below), in such a way that the service provider is expected to meet the overall rate of return target.

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In the context of the establishment of a single Price Control Basket, the regulatory agency would set one single X-factor for that Price Control Basket. In the context of more than one Price Control Baskets, however, there is the option of either having the same X-factor for all Price Control Baskets⁹, or of having different X-factors for different Price Control Baskets. Under the latter option the X-factors would be calculated in such a way that the service provider is expected to meet the overall rate of return target. This is traditionally done by setting the X-factors for one or a number of “policy” Price Control Baskets (e.g., residential and/or business access and domestic calling services) based on price/cost relationships and/or other policy considerations, and then calculating, on a residual basis, the X-factors for the other “calculated” Price Control Basket(s), subject to the condition that the service provider is expected earn an approved rate of return on its price cap regulated services.

The establishment of multiple Price Control Baskets also provides the regulatory agency with the option of creating an “uncapped” services category or Basket, wherein the Price Cap Services would receive a “light” regulatory treatment not being subject to a corresponding X-factor or other types of price controls, for example. However, given that any such services would still be regulated, they would continue to be subject to standard notification provisions. Assigning services to the uncapped services category may be appropriate in the case of regulated services deemed to be subject to emerging competitive pressures sufficient to eliminate the need for an upward pricing constraint.

Under the Forward-Looking Approach to setting price cap parameters (described in Section 4.5.1 above), the establishment of an “uncapped” services category provides two options with respect to the treatment of the revenues, costs, capital employed and profits associated with any service(s) that may be assigned to this category. Given the “lighter” regulatory treatment accorded to the services in this the uncapped services category, the regulatory agency could decide to include or exclude the revenues, costs, capital employed and profits for some or all of the services to be included in this basket, based on the current and expected price/cost relationship and other policy considerations.

Further, for services such as international inbound calling that may be covered by the Dominance Finding but do not have an explicit retail rate (and hence not included as a Price Caps Service subject to price controls), the revenues, expenses, capital employed and profits associated with that service could be included in the “uncapped” Basket only for price cap modeling purposes under the Forward-Looking Approach.

5.2.2 Proposal for New Regime

Based on the criteria listed above, the Commission is of the preliminary view that the following broad Price Control Baskets listed below could be included in the New Regime¹⁰:

⁹ In which case, it would have the same numerical value as the single Price Control Basket situation.

¹⁰ The Commission has not yet received detailed current information from C&W on the price/cost relationship of services – once the Commission receives such information, its analysis may impact on the Commission’s view of the matter, as would be reflected in the New Regime Decision.

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- **Price Control Basket #1. The Commission expects this to be a “policy” Basket wherein the X-factor is based on price/cost, affordability and other policy considerations.**
 - residential access installation charge
 - residential access
 - residential domestic (fixed-to-fixed) calling
 - residential domestic (fixed-to-mobile) calling (net receipts)
 - residential enhanced services/VAS (associated with access lines, including but not limited to Voicemail, Caller ID, etc.)
 - others, if any, to be determined
- **Price Control Basket #2: The Commission expects that this could be either a “policy” or a “calculated” Basket, depending the outcome of the X-factor for Basket #1, the price/cost relationship and other policy considerations.**
 - business access installation charge
 - business access
 - business domestic (fixed-to-fixed) calling
 - business domestic (fixed-to-mobile) calling (net receipts)
 - business enhanced services/VAS (associated with access lines, including but not limited to Voicemail, Caller ID, etc.)
 - domestic leased lines
 - payphones
 - others, if any, to be determined
- **Price Control Basket #3: The Commission expects this to be a “calculated” Basket wherein, taking into account the X-factors for the Price Control Baskets above, the X-factor is calculated residually for C&W to meet the approved rate of return.**
 - international (outbound) standard calling (net of outpayments)
 - international (outbound) discount calling (net of outpayments)
 - international leased lines
 - others, if any, to be determined
- **Basket #4: The Commission expects this to be an “uncapped” basket that does not have a Principal Pricing Constraint or other price controls. For purposes of modelling under the Forward-Looking Approach, the Commission may include or exclude the revenues, costs, capital employed and profits for any service(s) assigned to this Basket, depending on the current and expected price/cost relationship and policy considerations.**
 - international (inbound) calling (net receipts)
 - others, if any, to be determined

Question #11: Please comment on the appropriateness of the number, content and specification of the proposed Price Control Baskets described above. If an alternative approach is proposed, provide all relevant details of the approach and supporting rationale.

5.3 Other Pricing Constraints

5.3.1 Context and Framework

In addition to the overall X-factor to be applied to a particular Price Control Basket, other restrictions on the service provider's pricing flexibility within Price Control Baskets have been implemented in most price cap regimes. Care must be taken to design restrictions that are internally consistent, do not unduly constrain the service provider, and protect consumers from excessive rate increases.

Restrictions can be placed on the relative and/or absolute movement of some or all prices of individual services in Price Control Baskets. The maximum allowable price increase for individual services will be inversely proportional to the weight of the individual service within the Price Control Basket.¹¹

There are two alternatives to individual rate element restrictions, each of which may be applied to restrict the decreases and/or increases in prices. One of these methods commonly referred to as "banding", limits the price movement of specific services relative to another variable, usually the I-factor. The other type of restriction is one-sided – i.e., no individual rate element is allowed to increase by more than a fixed percentage amount (subject to the principal price cap constraint being satisfied). In this case, there are no limits placed on rate reductions other than those normally in place to prevent anti-competitive below-cost pricing.

There are no provisions in the Ordinance directly related to other pricing constraints. Section 6 of the Pricing Regulations includes the following provisions:

Changes to prices of Price Cap Services

[...]

(9) Notwithstanding the price level changes permitted under the Price Control Formula, the Commission may establish further limitations on changes to prices of Price Cap Services during any given Price Cap Year.

- (a) Such limitations may take the form of either (i) restrictions on the maximum overall percentage by which any prices for any Price Cap Service or Price Control Basket may increase within a given Price Cap Year, and/or (ii)

¹¹ As a result, the price for services with relatively small weights could increase significantly if the allowed increase were channelled towards one of these services and there were smaller compensating decreases in charges for services with relatively larger weights. Conversely, a service with a relatively heavy weight within the proposed services basket would be subject to only moderate price increases if the allowed increase were channelled to this service, even though compensating decreases were made in services with relatively smaller weights.

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restrictions on the number and frequency of separate price increases to be allowed.

- (b) The Commission shall establish any such limitations in establishing and subsequently reviewing the Price Cap Regime at the beginning of each Price Cap Regime Period.

5.3.2 Proposal for New Regime

Based on international best practice, the Commission expects to include additional individual rate element constraints in the New Regime. As noted above, however, the Commission has not yet received detailed current information from C&W on the price/cost relationship of services. Once the Commission receives such information, this information may be used to assist with the determination of any adopted rate element constraints in the New Regime Decision.

However, with a view to ensuring that residential access and calling remain affordable, the Commission expects to place tighter restrictions on residential service rate elements relative to those placed on business services. Alternatively, if a rate freeze were to be imposed on a certain service or group of services, then the corresponding rate element constraint in such cases would necessarily be set at 0%.

Question #12: Please comment on the need for, nature of (if any) and proposed general criteria for the other pricing constraints.

5.4 New Services

5.4.1 Context and Framework

One of the key objectives of price cap regulation is to promote service innovation. However, it is important to determine whether a particular service innovation is truly a new service or whether it is simply a repackaging of existing Price Cap Services.

There are no provisions in the Ordinance directly-related to the introduction of new services. Section 5 of the Pricing Regulations includes the following provisions:

- (5) When a Designated Licensee introduces a new telecommunications service, the Commission shall review the nature, terms and market position of such service to determine whether it shall be included within a Price Control Basket, and to determine the weighting to apply to revenues from such service in the calculation of the Price Cap Formula for the next Price Cap Year.

5.4.2 Proposal for New Regime

The Commission intends to adopt a test to determine whether the introduction of a “new” service by C&W after the coming into force of the New Regime in fact constitutes a new offering. In this respect, the Commission is of the preliminary view that new offerings should be included as part of the Price Caps Services if, either together or in combination with another service, it

provides the same kind of functionality as one of the existing Price Cap Services and consequently does not expand the range of services available. If it does not meet such a test, the Commission is of the preliminary view that such a new offering should not be included as part of the New Regime.

To give effect to this, the Commission expects that C&W should file a description of the new service and a proposal regarding its categorization for the Commission to determine whether it should be included or excluded from the New Regime. The Commission expects that C&W shall categorize a new telecommunication service consistent with the categorization of its existing telecommunications services and that it shall categorize as a Price Cap Service a new telecommunications service that is a combination comprising predominantly or exclusively Price Cap Services.

Question #13: Please comment of the proposed framework and criteria described above for the categorization of new services.

5.5 Market Trials and Promotions

5.5.1 Context and Framework

Another objective of price cap regulation is to promote pricing innovation. However, it is important to distinguish between generally available and long-standing services and prices from market trial and short-term promotions that are introduced by C&W for trialling, marketing or other purposes.

There are no provisions in the Ordinance or the Pricing Regulations directly-related to market trial and short-term promotions.

5.5.2 Proposal for New Regime

The Commission is of the preliminary view that C&W may conduct a market trial or short term promotion for a Price Cap Service without prior approval of the Commission, provided that a) the market trial or short term promotion does not exceed 90 days in duration; b) the market trial or short term promotion is not similar to a market trial or short term promotion that concluded less than 120 days earlier; and c) C&W files a description of the market trial or short term promotion, and the rates, terms and conditions applicable thereto, with the Commission at least 10 days before the beginning of the market trial or short term promotion.

Further, the Commission is of the preliminary view that Market Trials and Short Term Promotions should not be included in the calculation of the API.

Question #14: Please comment of the proposed framework described above for the treatment of market trial and short-term promotions.

6 Other Price Caps Matters

6.1 Price Cap Year, Bridge Period and Transition

6.1.1 Context and Framework

Price cap regimes are traditionally designed around multi-year periods. As set out in the definitions of the Pricing Regulations, a Price Cap Year means “the initial year and each subsequent year in which the Price Cap Regime shall be in force for any Designated Licensee”.

6.1.2 Proposal for New Regime

The specification of a Price Cap Year will depend on a number of considerations and options:

- One option is to use the Fiscal Year of C&W April 1 to March 1 (“FY”). The main advantage of this option is that the historical and projected financial and operating information that is used to design and monitor a price cap regime is already presented in FY terms and hence no further calculations are required to convert such data into a Price Cap Year. Adopting C&W’s FY period as the Price Cap Year would, however, create a gap or “Bridge Period” from the end of the Initial Regime (January 24, 2009) to the first full year of the New Regime under this approach (April 1, 2009). Either the existing price cap parameters would need to be maintained for the Bridge Period or a new set of parameters established.
- Another option is to use the Calendar Year of January 1 to December 31 (“CY”). The main advantage is that this coincides with most of the public’s time-keeping perspective. One disadvantage is that this would require converting FY data into a CY format. Another disadvantage is that a specific set of price cap rules would be required for the Bridge Period from the end of the Initial Regime (January 24, 2009) to the first full year of the New Regime under this approach (January 1, 2010).
- The last option is to use the implied Price Cap Years of the Initial Regime of January 25 to January 24 (“IR”). The main advantage of this approach is that it would not require a Bridge Period. However, the disadvantages are that it would require conversion of the CY data to an IR format and that it is an awkward period for financial accounting purposes.

Taking these above into account, the Commission is of the preliminary view that the Price Cap Year should be established as the period from April 1 to March 31 to coincide with C&W’s FY.

Question #15: Please comment on the appropriateness of the proposed Price Cap Year, as described above.

There are a number of options with respect to the arrangements for the Bridge Period from the end of the Initial Regime (January 24, 2009) to the first full year of the New Regime under this approach (April 1, 2009).

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One option is to extend the provisions of the existing Initial Regime to March 31, 2009. This would have the advantage of effectively eliminating the requirement for a Bridge Period. Another option is to actually start the New Regime on January 26, 2009 and hence incorporate the Bridge Period in the New Regime. One disadvantage with this approach is that the inclusion of the Bridge Period would require additional complexity in the New Regime by having relatively complex calculations for the Bridge Period that, given its relatively modest length, may not be proportionate.

Taking the above into account, the Commission is of the preliminary view that the provisions of the existing Initial Regime should be extended to March 31, 2009.

Question #16: Please comment on the appropriateness of extending the provisions of the existing Initial Regime to March 31, 2009.

As discussed above, the Initial Regime Services are a subset of the proposed Price Cap Services for the New Regime. In this regard, the Commission is of the preliminary view to establish a transition arrangement for the Bridge Period, whereby the Price Cap Services in the New Regime that are not currently included in the Initial Regime Services should also be the subject of the provisions included in the Initial Regime.

Question #17: Please comment on the appropriateness of applying the pricing provisions included under the Initial Regime to the Price Cap Services to be included in the New Regime during the proposed Bridge Period.

6.2 Price Cap Regime Period

6.2.1 Context and Framework

Around the world, most price cap regimes have had a duration of three to four years. There are no provisions in the Ordinance directly related to this period. However, the Pricing Regulations are very specific in this regard, including the following as part of its definitions: “Price Cap Regime Period” means a period of three to five Price Cap Years during which the Price Cap Regime is in force for any Designated Licensee.”

6.2.2 Proposal for New Regime

Taking into account international practice and the specific provisions in the Pricing Regulations, the Commission is of the preliminary view that the next Price Cap Regime Period should be four years in length, the mid-point of the range specified in the Pricing Regulations. In this manner the Price Cap Regime Period would be from April 1, 2009 to March 31, 2013.

Question #18: Please comment on the proposal that the Price Cap Regime Period be four years, from April 1, 2009 to March 31, 2013.

6.3 Exogenous Cost Factor

6.3.1 Context and Framework

Many regulatory agencies include an exogenous cost component, or Z-factor, in the price cap formula. This allows the service provider to adjust for changes in its input costs that are beyond its control and not otherwise captured in the I-factor. When establishing a Z-factor, it is crucial that regulatory agencies treat only those events over which the firm 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.

There are no provisions in the Ordinance directly related to exogenous costs or Z-factor. As noted above, the basic price cap formula in the Pricing Regulations includes a Z-factor and defines it as “exogenous cost changes (i.e., changes in costs to the firm—up or down—that are not captured by changes in conventional inputs (labor, capital, and raw materials) and that are beyond the firm’s control”.

6.3.2 Proposal for New Regime

Taking into account international practice and the specific provisions in the Pricing Regulations, the Commission is of the preliminary view that the price cap formula in the New Regime should include a Z-factor (as specified in Equation #B above).

Question #19: Please comment on the proposal to include a Z-factor in the price cap index formula.

Further, the Commission is of the preliminary view that an event should satisfy all the following criteria for the Commission to determine it as an exogenous event:

- Material in magnitude, so that any individual proposed cost adjustment must exceed an equivalent of 1.5% of C&W gross annual revenues from the provision of telecommunications services affected by the exogenous cost for the most recent FY.
- Unique to the telecommunications sector;
- Outside of C&W’s control, and
- Must not result from a transaction or transactions with a C&W affiliate.

An exogenous cost adjustment may be proposed by either C&W or the Commission and will be considered on a case-by-case basis. The Commission is of the view that the financial effect of any proposed exogenous cost change must be quantified and explained in detail in the accompanying supporting documentation by the party proposing the adjustment. All documentation supporting proposed exogenous cost changes must include a proposed recovery mechanism, including a rationale for the proposed recovery mechanism. The recovery of any exogenous cost changes should, to the extent possible, be recovered proportionally from the services affected by the exogenous cost change.

Question #20: Please comment on the proposed criteria and other arrangements described above in relation to the administration of exogenous cost changes.

6.4 Carry-over of Headroom

6.4.1 Context and Framework

When the regulated service provider chooses not to raise its prices up to the maximum allowable level (that is, $API < PCI$), then the PCI will exceed the API for a particular Price Cap Year. In effect, headroom is created (i.e., $PCI/API > 1$). In subsequent Price Cap Years the regulatory agency has the option of permitting the service provider to retain this headroom and therefore have the opportunity to implement price increases that exceed the relevant difference between the I-factor in the X-factor for that year. This represents the option of “carry-over headroom”.

The option of carrying unused headroom from one period to another allows a service provider greater flexibility of the timing of its rate changes. One scenario under which the service provider would choose to have headroom might be that market conditions make any further rate increases unprofitable for the service provider, in that demand may be sufficiently curtailed by such a rate increase. In most other circumstances it would be in the interest of the regulated service provider to reach zero headroom each year, since in doing so the service provider can capitalize on the profits that are afforded during this period.

Some regulatory agencies have not allowed the carry-over of headroom for a number of reasons. One is that carry-over of headroom reduces the certainty that consumers may expect to have over the maximum increase that they could face in any one year.

There are no provisions in the Ordinance directly related to carry-over headroom. However, the Pricing Regulations include the following provision in Section 6:

- (10) The Commission shall also establish a mechanism, as part of the initial establishment of the Price Cap Regime, to allow for Designated Licensees to carry over from one Price Cap Year to the next changes that were permitted (but not made) in the prices of any Price Cap Services.

6.4.2 Proposal for New Regime

Taking into account international practice and the Pricing Regulations, the Commission is of the view that permitting the carry-over of headroom that may exist over the course of the Price Cap Period is appropriate on a basket-by-basket basis.

Question #21: Please comment on the proposal to include, on a basket-by-basket basis, carry-over of headroom.

7 Notification, Compliance and Reporting

7.1 Notification of Price Changes

7.1.1 Context and Framework

Most forms of price regulation require the notification of price changes by the service provider to the regulatory agency and consumers, and this is certainly the case for the New Regime. In Section 27, the Ordinance has the following provisions related to rate changes:

(5) In approving, disallowing or amending any regulated rate or tariff filed by the licensee, the aim of the Commission shall be to facilitate the policy of market liberalisation and competitive pricing.

(6) Subject to the provisions of subsection (5) which shall govern rate of tariff increase, in approving, disallowing or amending any regulated rate or tariff filed by the licensee, the Commission shall reply in writing to a request by the licensee within 28 days of receipt of the tariff filing, failing which, such filing shall be deemed approved by the Commission.

(7) In considering a rate or tariff decrease filed by the licensee, the Commission shall reply in writing to a request within 7 working days of receipt of the filing stating whether the filing is approved by the Commission as filed or whether it is conditionally approved.

(8) Conditional approval under subsection (7) means that the rate or tariff decrease is approved so that the licensee may immediately implement the decrease and the Commission may then take up to 180 days after the introduction of the rate or tariff decrease to assess whether the rates or tariff are anti-competitive through a determination of whether they are above an incremental cost price floor.

(9) If the Commission fails to reply to the request within 7 working days, the filing shall be deemed approved by the Commission as filed.

The Pricing Regulations include the following extensive provisions in Section 6:

Changes to prices of Price Cap Services

6. (1) Designated Licensees subject to the Price Cap Regime may freely adjust the prices for Price Cap Services, subject to these Regulations.

(2) Before implementing any changes in prices of Price Cap Services, a Designated Licensee shall provide notice of at least twenty-eight (28) days for price increases, and seven (7) working days for price decreases to users and to the Commission, of such proposed change.

(3) The Commission may review any proposed price changes notified to it and, if it determines there is reasonable cause, may notify the Designated Licensee in writing that it is suspending the effectiveness of such changes pending a formal investigation of whether they are consistent with the Price Cap Regime.

(4) With respect to price decreases, within the seven (7) working day-period specified in subsection (2), the Commission may notify the Designated Licensee that the rate is conditionally approved, after which the Designated Licensee may immediately implement the decrease, subject

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to a determination by the Commission, by no later than 180 days after the effective date of such decrease, that such rate is anti-competitive or will have such effect.

(5) If the Commission does not order a suspension of notified price changes within the twenty-eight (28) day or (7) working day notice period, then the new rates shall take effect.

(6) Notwithstanding subsection (5), the Commission may at any time review any prior rate changes according to the provisions of these Regulations.

7.1.2 Proposal for New Regime

The Commission believes that the existing provisions in the Pricing Regulations are sufficiently detailed to be fully practical under the New Regime, and is therefore of the preliminary view that it should implement these as required.

Question #22: Please comment on the proposed arrangements for notification of price changes, as described above.

7.2 Compliance Filings

7.2.1 Context and Framework

It is standard practice for regulatory agencies to require service providers to show that any changes are in compliance with the rules of the price cap regime. These compliance issues may be separated into two types of instances, and from two different perspectives:

One component relates to compliance for price changes during the Price Cap Year. These compliance issues are related to the notification requirements discussed in the section above. Generally, this issue is related to the Principal Pricing Constraint, as discussed in Section 4.1.

The other component relates to an annual compliance. Section 6 of the Pricing Regulations includes provisions related to the annual *ex-post* verification by the Commission of compliance:

- (a) Within three (3) months after the end of each Price Cap Year, the Designated Licensee shall file with the Commission evidence demonstrating compliance with the Price Cap Regime for such Price Cap Year.
- (b) If the Commission determines, based on prior problems, or reasonably anticipated problems (based on the Designated Licensee's pricing of the Price Cap Services), with the Designated Licensee's demonstrating compliance, the Commission may, as appropriate, require that the Designated Licensee demonstrate compliance more frequently than as provided in clause (a).

(8) If, upon review of price changes implemented by a Designated Licensee during a given Price Cap Year, the Commission determines that such changes have caused the price level for a Price Control Basket to exceed the limitations determined by the Price Control Formula, the Commission may –

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- (a) order the immediate reduction of prices for one or more Price Cap Services within the Price Control Basket, together with retroactive refunds to customers of such Price Cap Services;
- (b) allow the price changes to remain in place, but impose further limitations or a moratorium on future price changes until such time as the Commission determines that customers of the Services in question have been properly compensated for the prior excess prices; and/or
- (c) impose such other sanctions, penalties, and remedies upon the Designated Licensee as it deems appropriate to respond to the violation of these Regulations, consistent with the provisions of the Ordinance.

7.2.2 Proposal for New Regime

The Commission believes that for any application for a price change during the Price Cap year, other than a price change in Annual Compliance Filing (see below), compliance should be shown on an *ex-ante* basis as part of the notification arrangements discussed in the section above. Hence, the Commission is of the preliminary view that for any price change C&W should be required to file a Rate Change Compliance Filing (“RCCF”) with the Commission. An RCCF must contain a description of the proposed rate changes, a recalculation of each Price Control Basket’s API reflecting any proposed rate changes, and a demonstration that each new API is less than its respective PCI established during the most recent Annual Compliance Filing.

Supporting documentation for API calculations in an RCCF must include all service price elements by Price Control Basket, and the associated revenues established in the most recent Annual Compliance Filing. C&W must also provide documentation in an RCCF for pricing changes involving special treatment.

Question #23: Please comment on the appropriateness of the proposed arrangements for the Rate Change Compliance Filing, as described above.

Similarly, and without prejudice to the *ex-post* provisions set out in the Pricing Regulations, the Commission believes that C&W should prepare an *ex-ante* Annual Compliance Filing (“ACF”) one month before the beginning of each Price Cap Year (March 1), calculating each new PCI for each Price Control Basket. The first ACF will be filed on March 1, 2009, with rates effective April 1, 2009.

The ACF will include all information required for the Commission to replicate and verify C&W’s calculations, including an EXCEL (or similar electronic spreadsheet software) file that incorporates all Price Cap Services, rate elements (existing and new) rates, and rate changes. If the ACF includes rate changes or new services, all filing requirements in an RCCF, including but not limited to the calculation of any new APIs and the description and proposed rates for new services, must be included with the ACF.

Any proposed Exogenous Cost Changes, including all documentation as discussed in Section 6.3.2, must be provided for in an ACF.

Question #24: Please comment on the appropriateness of the proposed arrangements for the Annual Compliance Filing, as described above.

7.3 Annual Regulatory Reporting

7.3.1 Context and Framework

It is standard practice for service providers to provide data and other information to regulatory agencies to monitor and analyse the price cap regime, including the financial and operational performance of the service provider. There are no specific provisions in this regard in the Ordinance or the Pricing Regulations.

7.3.2 Proposal for New Regime

The Commission is mindful that it has to strike the appropriate balance between its requirement to monitor and analyze and monitor the price cap regime on the one hand and its goal of not imposing unreasonable additional regulatory burdens on C&W. In this regard, the Commission is of the preliminary view that for the duration of the New Regime, C&W should be required to provide the Commission the following:

- Annual audited Statutory Financial Statements;
- Annual Regulatory Statements, showing, inter alia, service and overall return on mean capital employed and a reconciliation to the audited Statutory Financial Statements;
- Biennial updated versions of the Enhanced Allocation Model (“EAM”) that is to say, an EAM for FY2009-2010 to be submitted by July 1, 2010 and another for FY2011-2012 to be submitted by July 1, 2012.

Question #25: Please comment on the appropriateness of the proposed regulatory reporting requirements as described above.