FAIR TRADING COMMISSION

PRICE CAP PLAN 2016

DECISION

Document No: : FTC/UR/DEC/2016-01 Dated: March 31, 2016

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DOCUMENT TITLE: DECISION ON THE PRICE CAP PLAN 2016 FOR CABLE & WIRELESS (BARBADOS) LIMITED

ANTECEDENT DOCUMENTS

Document Number	Description	Date
FTC/UR/CONS/2016-01	Consultation on Review of Price Cap Mechanism 2012	February 8, 2016
FTC/UR/DEC/2012-02	Decision on Price Cap 2012 Compliance Rules and Procedures	May 22, 2012
FTC/UR/DEC/2012-01	Decision on Price Cap Plan	March 29, 2012

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INTERPRETATION SECTION

Actual Price Index (API) – means the actual level of prices in a service basket and should not exceed the price cap index.

Columbus Telecommunications – means Columbus Telecommunications (Barbados) Ltd. and the Barbados subsidiary of Columbus International Inc.

(the) Company – means Cable & Wireless (Barbados) Limited, the regulated service provider of domestic and international telecommunications services, pursuant to Utilities Regulation Order S.I. 2014 No. 65 and the Barbados subsidiary of Cable & Wireless Communications Plc

Exogenous Factor (Z-Factor) – means a component of the price cap formula incorporating a change, specific to the telecommunications industry, having a material impact on the regulated telecommunications provider, resulting from actions which are beyond the control of the provider.

Inflation Factor (I-Factor) – means the percentage change in the average retail price index (RPI) between two periods.

Legacy Customers – means customers of the pre-merger entity.

Legacy Fixed Telephony Services means the telephony services in existence pre-merger.

Merged Entity – means the company in existence as a result of the merger between Cable & Wireless Communications plc and Columbus International Inc.

Price Cap Index (PCI) – means the constraint that specifies the maximum level of aggregate price change for a service basket. The PCI consists of an inflation factor (I) a productivity offset (X) and an exogenous factor (Z).

Productivity Offset (X-Factor) – means the target productivity to offset the inflation rate in the price cap formula.

Regulated Services - means the utility services designated by the Minister pursuant to the Telecommunications (Regulated Services) Order S.I. 2006 No. 5.

Service Baskets – means a group of services subject to pricing constraints in the Price Cap Plan.

EXECUTIVE SUMMARY

The Fair Trading Commission has determined that the new Price Cap Plan 2016 (PCP 2016), as detailed within this Decision, will govern the adjustments of rates of regulated telecommunications services of Cable & Wireless (Barbados) Limited (hereinafter referred to as the Company) from **April 1, 2016 to March 31, 2019** (i.e. a three year price control period). **This will supersede the current Price Cap Plan which was introduced in April 2012 and which will expire at the end of March 2016.**

For the avoidance of doubt, the PCP 2016 will apply to all customers of the Company, including those acquired as part of the acquisition of Columbus Telecommunications.

Price Cap Structure and Price Controls

The PCP 2016 will be based on two service baskets, one for 'competitive' services and the second basket for 'non-competitive' services. In addition there will be a sub-cap on residential fixed line services (access and installation).

Basket 1 - 'Competitive' Services

This basket will include all regulated services for which the level of competition is deemed to be sufficient to prevent excessive pricing by the Company. These services will not be subject to an overall price cap; however the advance notification requirements as set out in the forthcoming Compliance Rules and Procedures will be in place.

Basket 2 - 'Non-competitive' Services

This basket will include all remaining, regulated services (i.e., all regulated domestic voice, fixed access, associated value added services and domestic private leased circuits). This includes access and call services previously offered by Columbus Telecommunications.

During the PCP 2016, prices across these services will be restricted such that any price increases across the Basket will be below or equal to the level of inflation or 3% per year in case inflation exceeds 3% during that year. In case of when the inflation rate is less than zero (i.e. negative), then the allowable price increase in that year will be set to zero for that year.

Sub-cap on residential access services

Residential fixed line access services are included in Basket 2 and will therefore be subject to the price control applied across all of these services. Further to this price cap, the Commission has determined that an additional pricing constraint, a sub-cap, should be applied to residential access services, taking account of the importance of these services to consumers.

In each year, the Company's ability to raise the prices of these services will be restricted, such that annual price increases will be below or equal to the level of inflation or 3% a year in case inflation exceeds 3% during that year (i.e. the same price cap as applied to the overall Basket 2). In case of a negative inflation rate in any given year, the allowable price increase in that year will be set to zero. Applying this additional pricing constraint ensures that prices for residential access service cannot increase beyond inflation during the PCP 2016, irrespective of the price changes applied to the remaining price capped services. It is considered reasonable to set the overall cap at the level of inflation (i.e. RPI-0) which implies an X factor equal to zero based on expected merger efficiencies during the PCP 2016.

Price Cap Formula

The price cap formula sets the maximum allowable average annual price change across the capped services (i.e. those contained in Basket 2).

The formula applied under the PCP 2016 remains unchanged relative to the price cap formula, underlying the previous price cap plan. The price cap formula allows the Company to only change its retail prices on average within each basket (i.e., the Actual Price Index, API) by less than the predetermined Price Cap Index (PCI).

The PCI for each year (t) is calculated as

$PCI_t = PCI_{t-1}(1 + I_t - X_t) \pm Z_t$, where

I is the inflation factor (i.e. RPI);

X is the productivity factor; and

Z is the exogenous factor

<u>Price Cap Model</u>

Whilst the PCP 2016 applies to the overall merged Company (i.e. including the relevant services from Columbus Telecommunications), the price cap has been set on the basis of a “hypothetical operator”, reflective of the Company before the merger. Any estimates of efficiency and cost of capital used to inform the level of the price cap also only considered data relating to the Company before the merger.

The PCP 2016 utilises a price cap financial model for determining what X factor would allow the hypothetical operator to realise a reasonable return on its investment across its capped services at the end of the price control period. This requires, amongst others, forecasting the expected volume of demand for the controlled services and the expected costs of the hypothetical operator to deliver these services. The level of costs for the price capped services is determined by taking into account the demand forecasts, expected inflation and expected efficiency gains over the PCP 2016, based on the pre-merger Company only. The expected efficiency gains are informed by, amongst others, historic trends in the pre-merger Company’s total factor productivity, international benchmarking of efficiency and the review of financial information provided by the Company.

Consultation Process

The Commission utilised the public consultative process as the means of ensuring full participation in the development of the Price Cap Plan. The Commission also had an extensive discussion of the various issues with the Company.

SECTION 1 BACKGROUND

INTRODUCTION

1. The price cap regime is designed to ensure that customers continue to have access to telecommunications services at "just and reasonable" rates, while providing Cable & Wireless (Barbados) Limited (the Company) with incentives to operate more efficiently and to be more innovative in the provision of services. Price cap regulation also allows flexibility in pricing, provided that the average change in prices charged by the Company does not exceed the Price Cap Index.

2. The Commission established a price cap framework to replace the rate of return as a system for the economic regulation of the Company's regulated services in 2005. The Commission's Decision at the time FTC/UR/2005-01 included provisions for a review of the Price Cap Plan prior to its conclusion. The last such review occurred in 2012 (i.e. at the time of the expiry of the Price Cap Plan 2008), giving rise to the PCP 2012.

3. The PCP 2012 initially set to cover the period from April 1st 2012 to March 31st 2015, was later extended to March 31st 2016[1]. In accordance with that Decision and the Price Cap Mechanism Compliance Rules and Procedures FTC/UR/DEC/2012-02, the Commission was mandated to review the PCP 2012 before its expiry on March 31st, 2016.[2] The Commission commenced a review of the said mechanism in October 2015.

[1] FTC Public Notice – Extension of the Price Cap Plan, dated 26 November 2014, accessible at: http://www.ftc.gov.bb/index.php?option=com_content&task=view&id=279

[2] FTC Public Notice – Extension of the Price Cap Plan, dated 26 November 2014

LEGISLATIVE FRAMEWORK

4. Under Section 4 (3) (a) of the Fair Trading Commission Act, CAP.326B, the Commission is charged with the responsibility to, inter alia, *"establish principles for arriving at the rates to be charged by service providers".* The Commission is also charged with this responsibility under Section 3 (1) of the Utilities Regulation Act, CAP.282.

5. Further in Section 39 (1) of the Telecommunications Act, CAP.282B it states that the Commission shall:

> *"establish and administer mechanisms for the regulation of prices in accordance with this Act, the Fair Trading Commission Act and the Utilities Regulation Act."*

6. The Telecommunications Act also states in Section 39 (2) that the rates should facilitate the policy of market liberalisation and competitive pricing.

7. In changing any principles of rate setting, the Commission is obligated to consult with interested parties in accordance with Section 4 (4) of the Fair Trading Commission Act, CAP. 326B which states that:

> *"The Commission shall, in performing its functions under subsection (3) (a), (b), (d) and (f) consult with the service providers, representatives of consumer interest groups and other parties that have an interest in the matter before it."*

REVIEW PROCESS

8. The Price Cap Review process included an assessment of the Company's recent regulatory and financial performance, and the overall market developments that have impacted and would continue to impact its performance. This assessment involved, amongst others, the examination and evaluation of financial information, productivity studies and a market report, submitted by the Company in preparation for the review process. It was carried out with the assistance of external consultants.

The review also included meetings with the Company to verify and discuss the information submitted.

9. The Commission issued its public consultation paper (FTC/UR/CONS/2016-01) on the PCP 2012 review on February 8th, 2016. This document presented information on:
    a. the current Price Cap Plan and recent trend in prices and demand under the Price Cap Plan;
    b. the continued need for price cap regulation, based on a review of the recent market developments;
    c. an outline of the proposed principles and structure of the Price Cap Plan 2016 (PCP 2016); and
    d. the parameters and methodologies and assumptions underlying the PCP 2016.

10. The objective of the consultation paper was to obtain public input to facilitate the Commission in ascertaining whether: (i) there remains a need to regulate, on an ex-ante basis, the Company's regulated services; and if so, whether (ii) to modify the principles, rules or parameters of the Price Cap Plan.

11. The Commission received a total of three (3) responses from: (i) Caritel; (ii) Digicel; and (iii) the Company.

12. The Commission has carefully reviewed and considered all submissions although not all the positions of parties have been summarised in this Decision.

13. The Commission thanks all parties who submitted responses.

SECTION 2 THE PRICE CAP PLAN 2016

14. **The Commission has determined that the current structure of the price cap mechanism remains appropriate and thus it will not be substantially modified for the next price cap period. A new Price Cap Plan 2016 (PCP 2016), as detailed within this Decision, will govern the regulated services of the Company from April 1st, 2016 to March 31st 2019.**

15. A price cap plan is defined by a specific set of elements that are designed to fit the particular market and regulatory environment. These elements include the number of service baskets, productivity factors, inflation factors, exogenous factors and carry over capability.

16. This section sets out a description of each of the elements that will define the PCP 2016 and the reasons for the Commission's Decision.

OBJECTIVES

17. The Commission considers that regulating prices through a price cap mechanism remains the most efficient and effective incentive-based form of regulation for the Company's regulated services. Additionally, price cap regulation continues to be a common form of retail price regulation used within the region where there is transition to competition.

18. The Commission considers that the objectives of the Price Cap Plan 2012 continue to be applicable going forward. These objectives are to:

    a. Provide the Company with the economic incentive to reduce operating costs;
    b. Provide the Company with an incentive to be innovative and replace plant in an efficient and prudent manner;
    c. Provide the Company with a reasonable opportunity to earn a fair return on its investment;

d. Allow any efficiency gains to be passed onto consumers through reduced prices of telecommunications services;

e. Streamline regulatory procedures relating to rates;

f. Facilitate pricing flexibility and responsiveness to evolving technological, legal and market conditions.

19. Caritel, in its response to the consultation, had misgivings about the PCP 2012 and argued that it resulted in price increases for consumers. The Commission notes that prices for consumer services such as line rental and installation charges had no nominal change over the price cap period and that other services such as voicemail decreased substantially over the previous price cap period. Given actual inflation during that period was, on average, 2.4% per year, this implies that prices for key residential fixed telephony services have decreased in real terms and thus have become more affordable to consumers over this period.

20. In its response, Cable & Wireless argued that, while the price cap allows the opportunity to earn a reasonable return, it placed undue risk on the Company of not earning that return. The Commission believes setting a multi-year price cap provides incentives for the Company to make efficiency gains which will result in increased profitability. The nature of price cap mechanisms is that the achieved return during the price cap period may differ from the cost of capital (unlike rate of return regulation) in order to provide incentive for cost minimisation. The Commission seeks to set the price control in a balanced way which results in the expectation that the Company can earn a reasonable return on capital, but with a possibility that the achieved return may differ from the determined cost of capital. The Commission is, however, cognisant of the risk of mis-forecasting inputs and hence mis-specifying the level of the price cap (in general and in the context of the current market), which increases with the length of the price cap period. This has been taken into account when setting the length of the PCP 2016 (see discussion in paragraphs 22 - 24).

21. **The Commission has determined that the current objectives of the price control (PCP 2012) (as set out in paragraph 18) remain valid for the PCP 2016.**

DURATION OF THE PCP 2016

22. Respondents to the public consultation generally indicated that they had no objections to the proposed three (3) year length of the next price cap plan.

23. Respondents also agreed on the option to extend the price cap plan for an additional year, at the discretion of the Commission at the end of the Price Cap Period.

24. **The Commission determined that PCP 2016 will therefore be based on the following three reporting periods which are aligned with the Company's financial year:**

    Period 1: April 1, 2016 through to March 31, 2017
    Period 2: April 1, 2017 through to March 31, 2018
    Period 3: April 1, 2018 through to March 31, 2019

SCOPE AND STRUCTURE OF THE PCP 2016

Service scope

25. **The Commission has determined that the services to be regulated under the PCP 2016 should continue to be the retail services specified by the Telecommunications (Regulated Services) Order 2006, as set out below.**

Table 1. Regulated Retail Services

Category	Services
Domestic voice services	Residential and non-residential fixed line access and installation, value added services, voicemail, internal voice network calling, domestic payphone calling, emergency calling
International voice services	Fixed outgoing international calling, international toll-free calling, international call centres, international calling cards, international payphone calling
Dedicated lines services	Domestic private leased circuits, international private leased circuits, direct exchange lines, dedicated lines used for internet

Inclusion of former Columbus Telecommunication customers in the next Price Cap Plan

26. The Company acquired Columbus Telecommunications in 2015, including a significant number of subscribers to services that are subject to price control.

27. In the consultation paper, the Commission proposed to apply a new price cap to the overall merged entity, i.e. it will cover the regulated services provided to former customers of the Company and Columbus Telecommunications, as well as any new customers acquired since the merger.

28. The respondents to the consultation agreed with the inclusion of former customers of Columbus Telecommunications in the operation of the price cap.

29. **The Commission has determined that the PCP 2016 will apply to all relevant services of the merged entity, including those provided to former customers of Columbus Telecommunications.**

<u>**Basket structure**</u>

30. As under previous price cap plans and given the predetermined service scope, the price control will focus on those regulated services where the

competitive constraint is limited, whilst providing more flexibility on services where effective competition has already emerged. The price cap (or basket) structure plays an important role in meeting this objective.

31. Previously there were two baskets defined, one for ‘competitive’ and another for ‘non-competitive’ services. This allows for the control of prices for those services where competition is not likely to be a constraint, whilst leaving the competitive services uncapped.

32. In addition, the previous price control (PCP 2012) included a sub-cap on residential access services, so that these customers were protected from large price increases. Introducing sub-caps on particular services within a basket ensures that prices on these services are not disproportionately increased, and thus ensures that there is a fair distribution of benefits and price reductions across customers, irrespective of their relative consumption of services.

33. The consultation paper set out three potential options for the structure of the price cap, with the Commission stating a preference for the second option:

    i. **Option 1:** Single basket covering all regulated services, plus a sub-cap on residential access services,
    ii. **Option 2:** Separate baskets for ‘competitive’ and ‘non-competitive’ services, plus a sub-cap on residential access services (i.e., the structure used for the PCP 2012); and
    iii. **Option 3:** Separate baskets for ‘competitive’, ‘non-competitive’ and residential access services.

34. In its response to the consultation, the Company agreed on Option 2 being the most suitable basket structure of the three options considered. The Company however recommended an alternative basket structure in which each service is placed into its own basket and a safeguard cap (X factor = 0) is placed on each basket. This means that prices for each basket, and thus for each service, would not rise more than the rate of inflation. The Company argues that this would allow to greatly simplify the price cap regime, prevent any mis-

specification of the price cap due to forecast errors, reduce the resource requirements for the Commission while still allowing to achieve the stated objectives.

35. The Commission has considered this proposal, however, it is of the opinion that adopting an individual basket for each service is contrary to the objective of allowing pricing flexibility within price capped baskets. As such, the Commission does not see merit in allocating each individual service to its own basket. Instead, the Commission considers it more suitable to retain a single basket for price capped services (and one for all remaining price regulated (i.e. 'competitive') services), to allow the Company to set prices for individual services within the basket, as long as these are in line with the overall cap imposed across that basket. Where more safeguards are required for particular services within the basket, a sub-cap can be imposed on the prices for those services (i.e., as is currently the case for residential access services).

36. Digicel expressed no concerns regarding the proposed basket structure.

37. **The Commission has determined that the PCP 2016 will be based on two service baskets for 'competitive' and 'non-competitive' services, plus a sub-cap on residential access services (i.e., its preferred Option 2).**

<u>Basket composition</u>

38. The composition of Basket 1 remains unchanged from the PCP 2012. Regulated services, for which the Commission deemed that there exists sufficient competition to prevent excessive pricing by the Company (see Table 2), will continue to be included in this basket, which will be uncapped (i.e., there are no pricing constraints imposed on those services).

39. All remaining price regulated services will continue to form part of Basket 2 (see Table 2).

Table 2. **Basket Composition under the PCP 2016**

Structure	
Basket 1	Fixed international outgoing calls, international calling cards, International calls from payphones, Domestic and international operator assistance and International private leased circuits.
Basket 2	All remaining regulated services including residential access, business access, voicemail, call waiting and domestic private leased circuits (DPLC).

40. The Company argued in its response that it also faces competitive constraints on its fixed access services due to increasing fixed-to-mobile substitution driven by the introduction of 4G LTE services and OTT-based services. The likely competitive constraints resulting from the entry of Digicel to the fixed market was also raised.

41. Digicel, in its response, highlighted that while it has entered the fixed market, it cannot currently compete with the Company and noted, amongst others, that, its coverage of the fixed market while extensive, is not as large as that of Cable & Wireless.

42. Having considered the evidence provided by both Cable & Wireless and Digicel, the Commission does not believe there is sufficient reason to add fixed telephony services to the basket of 'competitive' services (Basket 1) as part of the PCP 2016. In particular:

    a. The Commission does not believe that the Company has provided sufficient evidence that mobile services are currently acting as a competitive constraint on the level of prices for fixed access or call services. The arguments brought forward have focussed on the observed reduction in fixed call traffic and parallel increase in mobile call traffic in Barbados, suggesting fixed-to-mobile substitution taking place. Whilst these traffic trends may be a result of such substitution, there is insufficient evidence to prove that the number of end-users in Barbados who consider these services to be adequate substitutes for mobile services is significant enough to act as a competitive constraint on fixed telephony prices. In particular, the prevailing pricing structure (in terms of unmetered local calls) and the need for a fixed access to get fixed broadband are likely to limit substitutability of these services. Whilst the Commission recognises the Company's argument that this might change once 4G LTE services have been launched, the Commission cannot act in expectation of potential market trends and potential implications on the competitive dynamics in the market.

b. Similarly, C&W disagrees with the Commission's stated position on OTT services, without providing any further evidence on why OTT services impose a competitive constraint on fixed access and call services. As such, the Commission remains of the view that the prevailing product characteristics and pricing of these services, set out in the consultation document, indicate that OTT services are unlikely to be substitutes for residential access call services in Barbados over the next three years, and in turn, that these services should still be considered as part of a separate product market to OTT-based services.

c. Digicel's recent launch of a fixed telephony service[3], only available as part of a triple-play bundle (including fibre broadband and IPTV services) and at a higher monthly price than C&W's current (standalone) fixed telephony offerings is unlikely to exert any pricing constraint on customers who only want standalone fixed telephony services or dual-play bundles. Whilst there may be a degree of pricing constraint for triple-play bundles, the Commission has seen no evidence that this represents a significant share of total fixed telephony customers.

43. In light of the evidence reviewed, the Commission considers it prudent and in line with its responsibility to protect consumers to continue price regulating

[3] http://www.digicelgroup.com/bb/en/play/our-services/home-phone.html

fixed telephony services until there is clear evidence that this market has become effectively competitive.

44. **The Commission determined that all regulated services other than those included in the 'Competitive' basket (Basket 1) will continue to be included in a separate basket, Basket 2. This includes services provided to former customers of Columbus Telecommunications.**

PRICE CAP FORMULA

45. The price cap formula sets the allowable (weighted) average annual price change across the capped services (i.e. those contained in Basket 2).

46. In the consultation paper the Commission stated its preliminary view of applying the same price cap formula to the PCP 2016 as contained in the PCP 2012. The proposed price cap formula allows the Company to only change its retail prices on average within each basket (i.e., the Actual Price Index, API) by less than or equal to the predetermined Price Cap Index (PCI).

47. The PCI for each year (t) is calculated as

$$PCI_t = PCI_{t-1}\left(1 + I_t - X_t\right) \pm Z_t$$

Where:

I is the inflation factor (RPI);

X is the productivity factor; and

Z is the exogenous factor.

48. In its consultation response, the Company stated that it concurred with the Commission's proposed price cap formula. No other party commented on this issue.

49. **Given the above, the Commission determined to continue applying the same price cap formula as currently in place in PCP 2012.**

Inflation I-factor

50. The inflation factor as included in the price cap formula aims to allow the Company to recover exogenous changes to its input prices during the price cap period, as well as ensure that prices for fixed telephony services move in line with those for other services and consumer goods in Barbados.

51. The PCP 2012 uses the annualised Barbados Retail Price Index (RPI), computed on a monthly basis by the Barbados Statistical Service.

52. **The Commission has therefore determined that the Barbados Retail Price Index (RPI) will continue to be used to measure the inflation factor in the price cap formula in PCP 2016.**

X-factor

53. The X factor was informed based on a financial model, forecasting the expected demand for price-capped services and the expected costs to the Company of delivering these services during the PCP 2016, including efficiency gains. This analysis was undertaken based on a "hypothetical operator", reflective of the Company before the merger.

54. Additional information about the price cap model is found in Section 3 of this Decision.

Exogenous Z factor

55. The Z factor is a specific, cost pass-through variable, intended to address events occurring during the price control period, which are beyond the control of the Company, but could significantly impact the Company's financial return from providing these services (either positively or negatively). The objective of the Z factor is to allow for the adjustment of the PCI in the event of these 'exogenous' changes in income or expenditure (as these would not be accounted for in the I factor or X factor). Thus an increase

in PCI due to Z would allow the firm to increase prices via the API of the services.

56. Under the PCP 2012, a Z factor adjustment was considered for inclusion in the PCI where any of the following conditions are satisfied:

   a. The event is a legislative, judicial or administrative action which is beyond the control of the company; or
   b. The event relates specifically to the telecommunications industry; or
   c. The event has a material impact on the regulated segment of the Company which is subject to the Price Cap Mechanism.

57. There were no filings for the Z factor during the PCP 2012.

58. In the consultation paper, the Commission proposed to continue to include the Z factor in the price cap formula going forward. The Company welcomed the retention of the status quo regarding the Z factor. Digicel also suggested allowing the Company to request an earlier review of the price control in case it could demonstrate material changes in the market evolution. The Commission is of the view that such a request should be open to public comment and, should an early review be granted, it should be on substantially the same basis as a standard review.

59. **Thus, the Commission has determined that a Z factor adjustment will be included in the PCI based on the conditions set out in paragraph 56 above.**

PRICE CONTROL APPLIED TO EACH BASKET

60. In line with previous Price Cap Plans, the price control applied to each basket will vary in reflection of the degree of competitive constraint on the Company's pricing behaviour.

Basket 1 - 'Competitive' regulated services

61. For the services within Basket 1, the Company's pricing flexibility is deemed to be sufficiently constrained by competition to allow for a lighter form of price control.

62. It is expected that these prices would be driven primarily by competitive forces.

63. As under the PCP 2012, the basket of 'competitive' services will not be subject to an overall price cap under the PCP 2016, such that the average price changes in this basket will be constrained by a price cap index. These services will be subject to advance notification of price changes as set out in the Price Cap Compliance Rules and Procedures.

64. **The Commission determined under the PCP 2016 competitive services (i.e., those contained in Basket 1) will not be subject to an overall price cap.**

Basket 2 - 'Non-competitive' regulated services

65. In the PCP 2016, all 'non-competitive' services will continue to be subject to an overall control on Basket 2, with a further control in the form of a sub-cap being applied to residential access services.

Overall control on 'non-competitive' services

66. For the duration of the PCP 2016, the average change in prices in Basket 2 will be constrained by a standard "RPI-X" price control, which is set to ensure that the expected revenue for all 'non-competitive' services reflect the costs of delivering these services at the end of the PCP 2016.

67. The prices of the services in this basket must be set such that, on average, the price change is no greater than the rate of inflation. To provide further protection to consumers from any significant price increases in any given year, if inflation is greater than 3%, the maximum allowable price increase for these services will be capped at 3% each year. In cases when the inflation rate is less than zero, the allowable price increase in that year will be set to zero. This figure takes into account recent and projected trends of inflation for Barbados.

68. The price cap X factor was informed by the price cap model which reflected expected developments in demand and the company's cost base, including expected efficiency gains. The price cap has been set at a level which will result in the forecast return for the services in the basket converging to the estimated cost of capital. The modelling of the hypothetical pre-merger operator in the price cap model suggested a negative X factor of -1.0% to -1.5%, meaning that prices would have to increase above the rate of inflation each year during the PCP 2016. It does not take into account any efficiencies expected from the merger going forward. As such, the Commission considers it reasonable to set the overall cap at the level of inflation (i.e. RPI-0 which implies an X factor equal to zero and also implies merger efficiencies around 1.0-1.5% each year during the PCP 2016).

69. A maximum increase of prices for the period of the price cap implies that the level of prices across Basket 2 at the end of the price control will be the same in real terms (i.e. adjusted for inflation) as the current prices.

70. In the Consultation, the Commission proposed to allow the Company to 'carry-over' any unused headroom in Basket 2 from one period to the next, within the PCP 2016. However, this would not apply to the sub-cap on residential access services. Further, there would be no carry-over provisions across price cap plans. Respondents who commented on this issue supported the Commission's proposal for a carry-over provision within the price cap plan.

71. As part of its submission, Cable & Wireless requested further justification on the Commission's position in the PCP 2012 'carry-over' provision of disallowing the carry-over between price cap plans. The Commission remains of the view that limiting carry-overs to within a price cap plan provides the Company sufficient pricing flexibility whilst reducing the risk of the Company accumulating a large amount of headroom over time and thus, potential significant price increases in any given year of the next price cap plan.

72. **The price control for non-competitive services (i.e., those contained in Basket 2) under the PCP 2016 can be summarized as follows:**

a. **A price cap of inflation (RPI) or 3%, where inflation exceeding 3%, is applicable in each year of the price control. In case of negative inflation in any given year, the allowable price increase will be set at zero for that year.**

   b. **For the second and third years, actual price changes will be measured with respect to the base year (2015/16) (i.e., allowing for a carry-over of any headroom); and**

   c. **The Company is permitted to increase the tariff rates prices once in each price control period.**

Sub-cap on residential access services

73. In addition to these price controls applicable across all services in Basket 2, further pricing constraints continue to apply specifically to residential access services, taking account of the importance of these services to consumers.

74. Setting the price control for fixed residential access services requires balancing the distortions that could occur in maintaining the prices of services significantly below costs against the objective of ensuring a basic telephony service that is affordable to the general public.

75. In order to ensure that the affordability of basic fixed telephony services are maintained, residential access prices will be subject to the same price cap as applied across the overall Basket 2 but will also be subject to a subcap.

Applying this additional pricing constraint specific to residential access services ensures that prices for these services cannot increase beyond inflation during the PCP 2016, irrespective of the price changes applied to the remaining price capped services.

76. For residential access services, there will be no carry over allowance provided in between periods (i.e., in case the Company decides against using its allowable price increase for this service in Period 2, this will have no impact on the allowable price increase in Period 3).

77. A maximum increase of prices for the period of the price cap implies that the level of prices at the end of the price control will be the same in real terms (i.e. adjusted for inflation) as the current prices.

78. Respondents to the consultation paper did not express any disagreement with the application of a sub-cap for residential services.

79. **The additional price control for residential access services under the PCP 2016 can be summarized as follows:**

   a. **Allowable price increases in line with inflation (i.e. RPI), subject to a maximum increase of 3% each year in each period of the price cap. Where the inflation rate is less than zero in any given year, the allowable price increase will be set to zero for that year;**

   b. **No carry-over provision in between periods; and**

   c. **The Company is permitted to increase the tariff rates once in each price control period.**

Treatment of former customers of Columbus Telecommunication in the Price Cap Plan 2016

80. As mentioned above, the PCP 2016 applies to the overall merged Company, i.e. it will cover the regulated services provided by Cable & Wireless (C&W) and Columbus Telecommunications.

81. As part of its consultation, the Commission proposed four potential approaches for including the former customers of Columbus Telecommunications in the price control and ensuring the overall level of prices across the total subscriber base does not increase due to the inclusion of the former Columbus Telecommunications customers:

a. Maintain the existing differential in relative terms between former Columbus Telecommunications customers and the Company's other customers for the duration of the price control;
b. Move to a uniform set of prices for all customers based on weighted average prices of the former Columbus Telecommunications and C&W customers; or
c. Allow the Company the continued flexibility to set its prices so that the overall level of prices within Basket 2, averaged across the total customer base (former Columbus Telecommunications customers and other customers) does not increase.
d. Set the price at the minimum of the prices for customers of the Company and Columbus Telecommunications.

82. Given the objectives of the price cap, the Commission believes there is merit in ensuring that the overall level of prices does not increase, whilst allowing the Company the continued flexibility to set individual prices. As such, the Commission stated in the consultation paper that its favoured option is the third approach, option (c) above.

83. As part of its consultation response, the Company agreed with the Commission that option (c) was likely to be the best approach; however the Company expressed concern over a lack of clear explanation of how this would be implemented in practice. The Company also noted that the prices specific to former Columbus Telecommunications customers will decline over time because these prices are only available to former customers and customers will be moving to new products and services.

84. For clarity, the Commission is of the view that all legacy telephony service offerings available to former customers of Columbus Telecommunications will from part of Basket 2 and so will be subject to the same price cap as the Company's existing price capped service offerings. This allows the Company to have flexibility in setting its prices for price capped services so long as the average price change for all its customers is in line with the Price Cap Index as set out in the Price Cap Formula.

85. **The Commission has determined that the price cap will allow the Company the continued flexibility to set its prices as long as the average level prices across the entire customer base (former Columbus Telecommunications' customers and the other customers) change in line with the Price Cap Index.**

SECTION 3 PRICE CAP MODEL

OBJECTIVE AND APPLICATION OF THE PRICE CAP MODEL

86. In the development of the PCP 2016, the Commission utilised a Price Cap Model which was built and populated with the assistance of the Commission's consultants and input from the Company.

APPROACH

87. Whilst the PCP 2016 applies to the overall merged Company, the price cap (i.e., the PCIs of the PCP 2016) has been set on the basis of a "hypothetical operator", reflective of the Company before the merger. Any estimates of efficiency and cost of capital used to inform the level of the price cap would also only consider data relating to the Company before the merger. It is also recognised that the merger is likely to bring efficiency (productivity) gains within the duration of the price cap period. As discussed in more detail in the consultation document, this approach is appropriate at this stage, both on theoretical and practical grounds. There was no objection to this proposed approach as part of the consultation process.

88. The Price Cap Model forecasts the costs and revenues resulting from the regulated services under a range of assumptions based on forecasts, the expected volume of demand for the regulated services and the expected costs of the pre-merger Company to deliver these services going forward.

89. The level of costs for the regulated services are determined through consideration of the demand forecasts, expected inflation and expected efficiency gains over the PCP 2016, taking into account the pre-merger Company only. The expected efficiency gains are informed by, amongst others, historic trends in the Company's total factor productivity, international benchmarking of efficiency and the review of financial information provided by the Company.

Main inputs & modelling parameters

90. The Price Cap Model contains two main forms of input data:
    a. Financial and operational data for the base year (2015/16) sourced from the latest available Enhanced Allocation Model (EAM) data of the Company before the merger and the Total Factor Productivity (TFP) study; and
    b. Forecasting assumptions for the PCP 2016 period, informed by historic trends.

91. In addition to the input data set out above, the Price Cap Model allows the input of a range of parameters to reflect potential options for the PCP 2016 (such as the basket structure, the level of the X factor and price control duration). Revenues are forecast under the assumption that the Company will set prices as high as is allowed under the PCP 2016.

Main calculations

92. Based on the input data and forecast assumptions, the Price Cap Model performs the following main calculations:
    a. Volume forecasts. Service level volume forecasts are calculated for each regulated service of the "hypothetical operator" for the period covered by the PCP 2016 by applying demand growth assumptions to base year volume data of the pre-merger Company.
    b. Revenue forecasts. Future service revenues for each year of the PCP 2016 are calculated by combining the volume forecasts and the maximum price charges allowed under the applied price control structure and X factors (including the sub-cap).
    c. Cost forecasts. Total operating expenditure forecasts are projected from the base year levels for the period covered by the PCP 2016 based on a combination of inflation, efficiency assumptions, costs of sales and change in volumes.

d. Mean capital employed (MCE) & depreciation forecasts. Depreciation is projected from base year levels in the EAM under the assumption that it increases in line with the increase in net book value of the "hypothetical operator". Net book value is projected based on a forecast of the hypothetical operator's capital expenditure less projected depreciation and disposals. Working capital is projected forward from the base year values.

e. ROCE forecasts. Forecasts of the returns on capital employed (ROCE) for the capped services are calculated for each year under the PCP 2016 based on the revenue, cost and MCE forecasts.

Cost of capital

93. In order to determine the appropriate cost of capital, the Commission and consultants reviewed a Weighted Average Cost of Capital (WACC) Study submitted by the Company.

94. The quality and accuracy of the study and its results were carefully considered and compared to the previous estimate allowed by the Commission, as well as recent precedent within the region. The Commission considered that the Company's proposed estimate of 16.11% based on the WACC study was above a reasonable estimate of the pre-tax WACC, given the (pre-merger) Company's capital structure, and the attendant commercial, financial and economic risk of the Barbados economy.

95. The Commission judged that, based on the information available to it at this time, a price control which resulted in the ROCE for the capped services being approximately 15% in the final year of the price control period would meet the objectives of the price control. In the absence of a Commission review of the WACC, the Commission will set the WACC equal to the ROCE. The X factor will be determined based on this assumption.

96. The above decision on the appropriate level of ROCE to target when setting the price cap is specific to the PCP 2016 only.

Main outputs

97. The level of the X factor is determined to allow the forecasted ROCE to equal the cost of capital at the end of the PCP 2016.

98. Once the structure of the price control was determined, the level of the X factor applied in each year was varied until the ROCE for the services in Basket 2 in the third year was at a level consistent with the hypothetical operator's estimated cost of capital.

SECTION 4 PRICE CAP ADMINISTRATION

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99. The revision of the price cap plan requires that there be some revisions to the Price Cap Compliance Rules to take into consideration the principles of PCP 2016 as described in Section 2.

100. **The Price Cap Compliance Rules and Procedures 2016 will be issued in a separate document at a later date.**

The Price Cap Plan 2016 shall take effect from the 1st day of April 2016.

Dated this day of March 2016

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Jefferson Cumberbatch Chairman	Andrew Downes Deputy Chairman
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Monique Taitt Commissioner	Kendrid Sargeant Commissioner

…………………………………….

Donley Carrington
Commissioner