Office of Utilities Regulation

Regulatory Accounting Guidelines for Cable and Wireless Jamaica

Guidelines

OFFICE OF UTILITIES REGULATION

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Regulatory Accounting Guidelines for Cable and Wireless Jamaica
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DOCUMENT TITLE: REGULATORY ACCOUNTING GUIDELINES FOR CABLE AND WIRELESS JAMAICA

1. PURPOSE OF DOCUMENT

This document provides the Office's Regulatory Accounting Guidelines for Cable and Wireless Jamaica.
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RECORD OF REVISIONS

Revision Number	Description	Date

APPROVAL

This document is approved by the Office of Utilities Regulation and becomes effective on **April 1, 2006**.

On behalf of the Office:

……………………………..
J Paul Morgan
Director General

March 29, 2006
…………………………
Date

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Abstract
These Accounting Guidelines form part of the regulatory framework for the Telecommunications Sector in Jamaica. The primary objective of these Guidelines is to provide the basis on which Cable and Wireless Jamaica (a dominant fixed telecommunications operator) is required to prepare its Regulatory Accounts to be submitted to the Office of Utilities Regulation (The Office). Additionally, the Regulatory Accounting Guidelines ("The Guidelines") will provide the basis on which the Regulatory Accounts will be published. That is, the Guidelines are being published by the Office to instruct C&WJ on how to prepare separated Regulatory Accounts.

The preparation and publication of separated accounts that are transparent and audited are essential to the development of truly competitive markets for telecommunications services. Without these accounts, the Office may not be able to properly discharge its duties and functions as provided for in the Telecommunications Act 2000 (the Act). The regulatory objectives that separated accounts are intended to support include, ensuring non-discrimination, identifying unfair cross-subsidies, setting or assessing interconnection and other wholesale charges, and retail price control.

The Guidelines is a living document which is subject to change subsequent to consultation. Therefore, the Guidelines will have to be updated to take account of developments in the local telecommunications markets, C&WJ's progress in developing its Regulatory Accounts and accounting systems and international best practice.

These Guidelines apply specifically to C&WJ and were designed to accommodate that company's network configuration, products and services. However, the principles embodied in this document will be applied to any other carrier/service provider declared dominant in a relevant telecommunications market. In that event, comparable Guidelines will be prepared for any such carrier. As in the case of C&WJ, such Guidelines would be specifically prepared for that carrier/service provider.

Notwithstanding the provision of Separated Regulatory Accounts by a carrier, the Office still retains the right to seek and obtain any information it requires in order to carry out its functions as per Section 4(4) of the Act.

CHAPTER 1: INTRODUCTION

Regulatory Framework

1.0 The Telecommunications Act 2000 (The Act) is the primary legislation governing Jamaica's telecommunications sector. Under this Act the Office has been assigned certain regulatory duties. The broad objectives of this Act are:-

- to promote and protect the interests of the public;
- to promote universal access to telecommunications services for all persons in Jamaica, to the extent that it is reasonably practicable to provide such access;
- to facilitate competition in a manner consistent with Jamaica's international commitments in relation to the liberalization of telecommunications; and
- to encourage economically efficient investment in the sector.

1.1 It is a provision of the Act that the Office discharges its duties and responsibilities in a transparent and accountable manner. Amongst the duties and functions, the Office is to:-

- promote the interests of customers while having due regard to the interests of carriers and service providers ; and
- promote competition among carriers and service providers.

1.2 In order to satisfy the *any-to-any* connectivity principle of interconnection each public voice carrier is obligated to permit interconnection of its public voice network with the public voice network of any other carrier for the provision of voice services.[1] Two other general principles regarding the nature and purpose of interconnection by all public voice carriers are:-

a) *End-to-end Operability:* Interconnection should be across interfaces, of sufficient functionality to ensure that high quality services can be provided to consumers even where the call recipient and the calling customer are on different networks.

b) *Equal Responsibility: A*ll public voice carriers have equal responsibility to ensure that networks are interconnected and to do so as quickly as is reasonably practicable.

1.3 Entrants have to pay a large amount of their revenues in interconnection charges, making them vulnerable to abuse of dominance by the

[1] Section 29(1), Telecommunications Act, 2000

incumbent dominant carrier/service provider, C&WJ. A dominant firm has the ability to distort competition in a relevant market. This is especially so in telecommunications, in which a dominant firm is typically both:-

- a supplier of critical inputs (interconnection and wholesale) to downstream service providers; and
- a competitor against these service providers in downstream retail markets.

1.4 For these reasons, the Act provides some general underlying principles regarding interconnection services supplied by dominant public voice carriers. These are listed below (Section 30):-

- terms and conditions of interconnection shall be
  - "on a non-discriminatory basis;
  - reasonable and transparent, including such terms and conditions as relate to technical specifications and the number of locations of points of interconnection; and
  - charges shall be cost oriented and be guided by certain cost causation principles (section 33);
- no unfair arrangements for cross-subsidies shall be made; and
- where technically and economically reasonable interconnection services shall be so diversified as to render it unnecessary for an interconnection seeker to pay unreasonably for network components or facilities it does not require."

1.5 To ensure that charges are truly cost oriented Section 30 of the Act makes it obligatory for each dominant public voice carrier to "…keep separate accounts in such form and containing such particulars as will enable the Office to assess whether that carrier provides interconnection services in accordance with the principles specified…" at paragraph 1.4. A more general provision is set out at section 4(5) which provides for the Office to "….make rules, subject to affirmative resolution, prescribing the system of regulatory accounts to be kept by a dominant carrier or service provider".

Role of Accounting Separation

1.6 Market distortion by a dominant firm may take various forms, including excessive charges for interconnect services, discrimination in pricing, unfair cross-subsidies, and predatory pricing. These practices are usually aimed at stifling competition and may even prevent market entry. Accounting Separation (AS) is a common tool used to address these anti-competitive concerns. Under this approach, the operator's activities are split for accounting purposes, into separate businesses or services. In other words accounting separation does not impose on the operator a set of rules about how its activities should be organized, but simply how accounting information is to be collected and reported. The transfer charges from one business to another can be explicitly identified, allowing non-discrimination to be enforced, and the profitability of particular businesses or services can be monitored, allowing cross-subsidies to be identified. Accounting separation would also ensure a systematic division of costs between retail and wholesale, thereby ensuring that the cost base for interconnection charges and charges for other services and products include only relevant costs.

1.7 Carriers/service providers have also found separated accounts to be useful because it provides the foundation for an integrated platform for internal product reporting requirements and pricing.

1.8 Accounting separation provides a useful technique for investigating allegations about anti-competitive behavior by dominant firms. The Office is also aware of the need for robust cost information for future price cap purposes as well as for setting or assessing interconnection charges.

1.9 The Office maintains the position that the preparation and publication of separated accounts that are transparent and audited are essential to the development of truly competitive markets for telecommunications services. Indeed, without such a tool the Office may not be able to discharge its duties and functions as provided for in the Act. In the March 2000 consultative document (Regulatory Accounts for a Dominant Carrier or Service Provider) the Office set out four regulatory objectives that separated accounts are intended to support:-

- ensuring non-discrimination,
- identifying unfair cross-subsidies,
- setting or assessing interconnection charges,
- retail price control.

1.10 It is important to establish not only that the transfer charges from one of the incumbent's businesses to another are calculated in a non-discriminatory manner, but also that these are treated by the dominant carrier/service provider as 'hard' charges and not simply paper accounting transactions. In other words, when the incumbent sets the prices for the retail business that purchases network services, it must treat the transfer charges as real costs that need to be recovered. Otherwise, a price squeeze may occur if the incumbent engages in discriminatory pricing behavior. The margin between the interconnection charges and the incumbent's retail price, against which the entrant is competing, may be insufficient to allow an efficient competitor to make a profit. This may constitute a distortion of competition.

1.11 A widely used technique to ensure that such price squeezes are not occurring is the ‘imputation test’. The imputation test is conducted by comparing the retail price charged by the incumbent with the ‘stack’ of costs incurred to provide each service which is subject to competition. These costs comprise the transfer interconnection or wholesale charges for that service plus its retail costs (and any other relevant costs). The interconnection charges for the relevant service are calculated using the same charges as paid by interconnecting operators, and depend on the particular interconnection services that it uses as inputs.

1.12 If regulatory accounting requirements have not set in advance, when a problem arises there is the risk that the Office would lack the necessary information to analyze the issue. Any cost information obtained would be on an ad hoc basis and could consequently lack robustness and credibility.

International Practice

1.13 International best practice played a major role in the development of these Guidelines for C&WJ’s separated accounts. In particular, the Guidelines reflect developments within the European Community. However, importantly, the Guidelines reflect the domestic conditions and the specific firm circumstances, in this instance, C&WJ.

1.14 It is important to note that these Guidelines form a living document that is subject to change. Therefore, the OUR monitor international and domestic developments and where it deems necessary, propose further changes in an effort to remain consistent with international best practice, and local conditions.

Structure of this Document

1.15 Chapter 2 discusses the regulatory accounting principles, Chapter 3 covers C&WJ’s regulatory accounts and Chapter 4 provides guidance on the regulatory financial statements. The Appendix covers the definition of main businesses and disaggregated service categories, list of main businesses and service categories, statements of Profit and loss and Mean Capital Employed, Reconciliation of both Statements, Statement of Costs for Fixed Network Services, the Inter-business Cost Summary, Statement of Transfer Charges, Statement of Selected Service Unit Costs, the Regulatory Accounting Principles, Transfer Charging Principles, the Cost Accounting Systems, Principle of Causality, and Cost Accounting Principles.

CHAPTER 2: REGULATORY ACCOUNTING PRINCIPLES

REGULATORY ACCOUNTING PRINCIPLES

2.0 This section sets out the principles that should be followed in order to allocate costs, capital employed and revenues for the purposes of cost accounting and accounting separation. The relevant accounting principles include priority, definition, causality, objectivity, consistency, transparency and sampling. These are discussed below.

Priority

2.1 Within the Regulatory Accounting Principles, insofar as there is conflict between the requirements of any or all of these Principles, the Principles are to be applied in the same order of priority as that in which they appear in this document.

Definitions

2.2 Any word or expression used in the Accounting Documents shall, unless the context otherwise requires, have the same meaning as it has in the Telecommunications Act (rules, regulations, etc?).

Causality

2.3 Revenue (including transfer charges), costs (including transfer charges), assets and liabilities shall be attributed to cost components, services and businesses or disaggregated businesses in accordance with the activities that cause the revenues to be earned or costs to be incurred or the assets to be acquired or liabilities to be incurred.

Objectivity

2.4 The attribution shall be objective and not intended to benefit the dominant carrier or service provider or any other carrier, product, service, component, business or disaggregated business.

Consistency

2.5 There shall be consistency of treatment from year to year. Where there are material changes to the Regulatory Accounting Principles, the Attribution Methods, or the Accounting Policies that have a material effect on the information reported in the Financial Statements the information affected by the changes shall be restated.

Transparency

2.6 The Attribution Methods used should be transparent. Costs and revenues, which are allocated to Businesses and activities, shall be separately distinguished from those that cannot be directly allocated.

Sampling

2.7 The sample shall be constructed to meet the following principles:-
   (i) it is unbiased/objective
   (ii) the sample size has been assessed to be statistically significant
   (iii) it is representative of the entire population
   (iv) it is not skewed by seasonal or other factors
   (v) it is based on either generally accepted statistical techniques or other methods which should result in the accurate attribution, and
   (vi) it will be updated annually.

2.8 Where sampling is used to derive the attribution of costs, revenues, assets, liabilities, etc it shall be based either on generally accepted statistical techniques or other methods designed to deliver equivalent results of revenue (including transfer charges), costs (including transfer charges), assets and liabilities.

Cost Allocation Principles

2.9 The Office's position is that all of the principle are important but causality, particularly in relation to cost, is generally more complex and is pivotal in determining cost allocation methodologies and systems. In order to ensure that economic regulatory decisions can be made on the most appropriate basis, C&WJ is required to prepare its Regulatory Accounts on a Current Cost Accounting (CCA) basis as per the details provided in Appendix XIV, XV and XVI.

Accounting Framework Documents

2.10 Chapter 4 contains details on the financial statements to be prepared for each of C&WJ's main businesses. C&WJ is also required to assemble Accounting Documents detailing the general principles and methods used in the preparation of the financial statements. This would allow the Office and interested parties to check for reasonableness and consistency in the preparation of financial statements. It also promotes transparency in the preparation of financial statements.

2.11 The key components of the Accounting Documents are the:-
   (a) Regulatory principles;
   (b) Attribution methods;
   (c) Transfer charging principle; and
   (d) Accounting policies

2.12 Where there is conflict between all or some of these components the following order of priority is proposed:-

(a) Regulatory principles;
(b) Attribution methods
(c) Transfer charging principle; and
(d) Accounting policies

Regulatory Principles

2.13 These are outlined above and constitute the rules to be used in the preparation of the financial statement, in the application of the attribution methods, the transfer charging system, and the accounting policies. The applicable regulatory accounting principles are Priority, Definitions, Causality, Objectivity, Consistency, Transparency, and Sampling. For example, the attribution of revenues, costs, etc should be transparent. This means that the allocation of costs and revenues to Main Businesses and where applicable, each of the disaggregated service categories of that Business would be separately distinguished from those that cannot be directly allocated. A Detailed discussion of these principles is outlined above. Additionally, where there is a conflict between the requirements of any or all of the regulatory principles, the principles should be applied in the following order of priority: Priority, Definitions, Causality, Objectivity, Consistency, Transparency, and Sampling.

Attribution Methods

2.14 The methods for attributing revenue (including transfer charges), costs (including transfer charges), assets and liabilities to each Main Business, network elements, and service categories comprising each Business should be in accordance with the Regulatory principles.

Transfer Charges

2.15 As part of its accounting information the Office has determined that C&WJ should provide a detailed description of the process and methods used for deriving internal transfer charges between its network business (fixed and mobile) and its other Businesses or service categories. The objective is to provide transparency for all intra C&WJ activities. Annex XIII outlines the relevant principles governing the proposed transfer charging regime. For example the transfer charges for internal use and charges to other carriers or service providers should be determined by the product usage and unit charges.

Accounting Policies

2.16 These are the accounting conventions to be used in the preparation of financial statements. The minimum list of items on which detailed documentation should be provided is:-
(a) principles of asset valuation (intangible and tangible);
(b) depreciation method, rates, and asset lives;

(c) inventories;
(d) interest;
(e) foreign currencies;
(f) account receivables;
(g) fixed asset investments;
(h) redundancy costs;
(i) pension schemes;
(j) bad debts; and
(k) financial instruments

2.17 The Office is of the opinion that three months from the publication date of the final determination notice is reasonable to assemble the Accounting Documents and submit them to the Office for consultation and review.

Data Comparability, Reliability and Retention

Comparability

2.18 In terms of comparability, full transparency of the policies and other methodologies used to prepare regulatory financial statements is critical since a change in policy or methodology could significantly impact on the magnitude data presented. With this in mind, it is important that material changes in any policy or methodology should lead to a restatement of previous years' results in order to maintain comparability.

Reliability

All stakeholders, including C&WJ must be able to rely on the information from the regulatory audit. The information is deemed reliable if:

- it can be depended upon by users to truly represent what it purports to represent;
- it is demonstrated to be free from deliberate or systematic bias;
- is does not contain material error;
- is it complete (subject to materiality tests); and
- estimates are prudently determined.

2.19 Importantly, if C&WJ has adequately validated the reliability of the Regulatory Accounts, it should be able to demonstrate this confidence by having a senior representative of the company formally endorsing them.

Data Retention

2.20 It must be demonstrated that any data used for regulatory statements is data originally presented in C&WJ's information systems, starting with the initial regulatory audit. Additionally, the data use in the audit process must be available electronically or on paper and enables the auditor to perform tests and verifications in order to allow the auditor to be confident in the data to be used in the audit process. To this end, the OUR requires that the relevant carrier and/or service provider shall retain for a minimum of seven (7) years, all raw data, financial and other statements, and Regulatory Accounting reports in a standard electronic format. Also, electronic copies of all principles, methodologies and other documents used in the preparation of each Regulatory Financial Statement shall be maintained for the same period.

Audit of the Regulatory Accounts

2.21 Consistent with international best practice, C&WJ's Regulatory Accounts must be subject to independent audit in accordance with Regulatory Accounting Rules. The audit opinion should state that the Regulatory Accounts have been "properly presented" and may be based on sampling techniques where appropriate. This level of audit assurance should assist in reducing the audit cost for the initial years.

2.22 After the first year of regulatory audit, the Office will consult on whether to move to a "fairly presents" opinion. If deemed necessary, the third year of separated accounts would be audited with an opinion of fairly presents.

Elements to be covered in the audit

2.23 The main elements that the OUR requires to be covered in the audit are listed below:

- the scope of costs included in the model and the scope of costs allocated to regulated products;
- the reconciliation between C&WJ's regulatory accounts and its statutory accounts;
- accuracy of figures, including operational data e.g. volumes, technological parameters;
- appropriateness of methodologies used regarding amortization, cost capitalization, allocation and for the evaluation of the assets (e.g. current costs); and
- the accuracy and appropriateness of transfer charges in separated accounts.

2.24 This list may be adjusted over time to reflect changes in the regulatory framework and in particular, changes in the level of the audit assurance.

CHAPTER 3: C&WJ'S REGULATORY ACCOUNTS

LEVEL OF ACCOUNTING SEPARATION

3.0 This Chapter sets out the level of disaggregation that C&WJ's is required to undertake in its Regulatory Accounts**.** In addition to the consideration of best practice, the Office has taken both the size of C&WJ and the characteristics of the Jamaican telecommunications markets into account in determining the requirements for C&WJ to prepare separate accounting information.

3.1 For purposes of accounting separation, the Office has determined that C&WJ should split its activities into the main business areas listed below. The definition of each main business is set out in **Annex I** of this document.

- Fixed Access Business
- Fixed Network Business
- Fixed Retail Services Business
- Mobile Business

These main businesses would be further disaggregated as described in the next segment of this chapter.

Disaggregated Service Categories and Definitions

3.2 The Office has determined that further disaggregation of the main business areas would increase transparency and assure competing operators that there is no discrimination in the provision of services that C&WJ's provides to its own retail arm.

3.3 Disaggregated activities should cover the main retail downstream activities of C&WJ's fixed network. The Office is also of the view that to enable competition to flourish, there must be transparency at the retail level of C&WJ's business. Furthermore, the Office considers it appropriate to include those major activities where C&WJ will compete in niche markets with new entrants as part of the disaggregated activities. Subject to further consultation, the Office reserves the right to review the level of disaggregation as set out in this document in light of relevant market growth or changes in product offerings by C&WJ.

3.4 The definitions of each service category are set out in **Annex II** to this Document. *The relevant Fixed Retail Services Businesses are:*

- Domestic Calls (former intra and Inter-Parish Calls)
- Fixed to Mobile Calls
- International Outgoing Calls

- International Incoming Calls
- Directory Enquiries (DQ)
- Data Communication Services
- Internet service provision
- Supplemental Retail
- Remaining Services

3.5 It must be emphasized that accounting separation is recognized as an extremely useful ex-ante regulatory tool especially in a newly liberalized regimes like Jamaica. It serves the following purposes:-

- prevention of unfair predatory pricing and cross-subsidization,
- ease of comparison between operators,
- promoting understanding of the relationship between the dominant carrier's charges and costs,
- detecting discriminatory behavior on prices charged internally versus those charged to competing operators.

3.6 There is no doubt that there are additional costs involved in developing a robust and transparent system of regulatory accounting and the need to minimize cost has been recognized by the Office. It is the Office's intention to minimize:

- tracking costs and the cost of maintaining the system of accounts,
- fees for annual audit by independent auditors,
- costs of publishing reports, and
- costs in terms of manpower necessary for audit, reporting and data collection.

However, the Office needs to strike a balance between transparency and the cost of compliance. Indeed, even in the absence of any requirement by the Office the Company would need to know the cost and revenues of its various services and thus would incur these costs anyhow. Additionally, in the absence of robust and transparent system of regulatory accounting, the welfare loss is expected to be significant.

Publication of Information

3.7 The financial statements are to be made public, as is the best practice elsewhere, for example the United Kingdom and Ireland. While there are additional costs involved in the publication, the Office considers that the benefits of publications are likely to exceed the cost. Such benefits include:-

- ensuring that interconnection charges are appropriately derived and that C&WJ is not unduly favoring its retail business.
- allowing other operators to understand the relationship between revenues and costs of the interconnecting provider.

- giving other operators confidence that the interconnection arrangements are equitable, that is, there is no under or over-recovery of network costs.
- increasing and raising the confidence of competitors that there are no unfair cross subsidies.

Publication of Related Information and Notes

3.8 In addition to the publication of the financial statements C&WJ should also publish the Accounting Documents, detailing the methodologies used in preparing separate accounts. Explanatory notes detailing, among other things any material changes which impact on the financial statements for a given period and on comparative figures for the previous period should also be provided. The publication of the Accounting Documents along with explanatory notes would allow interested parties to check for reasonableness and consistency in the preparation of regulatory accounts, as well as to promote transparency in the preparation of regulatory accounts. The Office and members of the public, upon review of these accounts, should be able to come to a full understanding of the information contained within these accounts.

Timeframe for Publication

3.9 Regulatory accounts should be published on a timely basis. Undue delays in publication would render the accounts useless as this would serve to negate the positive effects of reviewing the information in separated accounts. During the consultation the OUR proposed that C&WJ submit regulatory accounts to the Office and make copies available to interested parties within three (3) months after the end of each financial year, i.e. June each year. C&WJ pointed out that three months might not be feasible "since regulatory accounts depend on the finalization of the statutory accounts, regulatory accounts should not be required to be published until 3 months after the publication of the statutory accounts." In other words, if C&WJ publishes its statutory accounts in September then it would have up until December to publish its regulatory accounts. This would be three months short of the next financial year. Except for the initial year of regulatory accounts, the Office considers this unacceptable and has decided that regulatory accounts should be published no later than six (6) months following the financial period to which they relate.

Direction on Production of Regulatory Accounts

3.10 The Guidelines contained in this document provide C&WJ with a set of principles to be applied in the preparation and submission of Regulatory Accounts. These Guidelines include some detailed guidance on technical aspects of separated Regulatory Accounts. Guidance on issues relating to costing methodologies and cost allocation methods are specifically mentioned.

In accordance with section 4(5) of the Act which provides for the Office to "….make rules, subject to affirmative resolution, prescribing the system of regulatory accounts to be kept by a dominant carrier or service provider", except for the initial reporting year, Cable & Wireless Jamaica is directed to prepare, submit and publish Regulatory Accounts each year no later than six months after the end of the company's financial year in accordance with these Guidelines and any amendments thereof.

Related Consultations

3.11 Section 35 of the Telecommunications Act 2000 gives the Office of Utilities Regulation (OUR) the power to make rules to address any anti-competitive practices that dominant voice carriers are likely to be engaged in. Additionally, Section 71 also gives the OUR general rule making powers to address any issue relating to the regulation of the telecommunications industry in Jamaica. As such, the OUR will be issuing a Notice of Proposed Rule Making (NPRM) document that will identify various anti-competitive practices that may be engaged in by dominant carriers/service providers. The NPRM will also suggest competitive safeguards rules that may be applicable in these circumstances. The information requirements under accounting separation will support more detailed analysis of anticompetitive behaviour by dominant companies.

CHAPTER 4: REGULATORY FINANCIAL STATEMENTS

Format and Content of Financial Statements

4.0 As indicated in the previous Chapter it is proposed that C&WJ split its activities into four Main Businesses. The Office also proposes that C&WJ disaggregate its Retail Business into various service categories. For each Main Businesses C&WJ would be required to prepare statements of profit and loss, and mean capital employed. These statements would be reconciled with the annual statutory accounts and reports of the Company. The Office also determines that C&WJ should prepare statements of cost for its fixed and mobile network services, and statement of costs for some key retail services. The principles and methodologies to be used in the preparation of all financial statements are to be set out in the Accounting Documents and these statements should be read in conjunction with the Accounting Document. The main business activities for which C&WJ is required to prepare statements of profit & loss, and mean capital employed are set out in **Annex III.**

Statement of Profit & Loss

4.1 The Statement of Profit & Loss should detail the operating result and return on capital employed per Business. Return (profit/loss) would be calculated on the same basis as the cost of capital. For example if returns are on a pre-tax basis, the weighted average cost of capital in the accounts would be before tax. The pro-forma profit & loss statement is set out in **Annex IV.**

Statement of Mean Capital Employed

4.2 The Statement of Mean Capital Employed is expected to show the capital employed by the firm for supplying each Main Business and, where necessary, each of the disaggregated service categories with each Business. The figures reported in this statement are to be the average values for the period to which the statement relates. This average should ideally be a weighted average value, although a simple average value of opening and closing balances may be used in the initial year of reporting. However, if an opening balance is not available in the initial year, the closing balance should be used. The statement of mean capital employed is set out in **Annex V.**

Statements of Reconciliation

4.3 The Office is of the opinion that the statements of profit and loss, and mean capital employed of all the main businesses should be reconciled with the annual statutory report and accounts of the Company. Where the accounting principles used in preparing these statements differ from the statutory accounting principles the effects should be disclosed in this statement and notes explaining the differences should be provided. The format for the reconciliation statements for profit & loss, and mean capital employed are set out at Annex VI and Annex VII respectively.

Statements of Network Costs

4.4 A primary objective of regulatory accounting is to ensure non-discrimination in charges. A system of transfer charging is appropriate for services and products provided between C&WJ's main businesses and disaggregated service categories. For example: C&WJ's fixed and mobile networks sell a range of services to meet the differing needs of competing mobile operators. All services sold by the fixed and mobile network either to the competing carriers or to its own retail businesses are built up from combinations of one or more network elements using routing factors. The payment received from other carriers for network services based on the incumbent's or dominant carrier's Reference Interconnect Offer (RIO). The payments made by its own retail businesses are the internal transfer charges.

4.5 For purposes of transparency C&WJ is required to prepare a statement of network costs for its fixed as well as mobile network services as part of its accounting separation information.

4.6 Annex VIII of these Guidelines contains an illustration of the statement of interconnection service and network element costs. C&WJ argued that detailed information should be restricted to the Office. This view is not shared by the Office. It is a requirement of the Act that the charges for interconnection by a dominant carrier be transparent. In this regard C&WJ's statement of network costs would not satisfy the transparency requirement if the information is restricted to the Office. Indeed, the publication of this statement will enhance transparency and give competitors confidence that charges are appropriately derived. The Office proposed two stages in deriving cost oriented interconnect charges. In the first stage the network elements needed for supplying the service are identified along with the unit cost (including a return on capital employed). The second stage requires a determination of the usage factor for each element. Separate statements should be produced for mobile and fixed network elements. The statement of network cost elements should include the following:-

- Per minute cost of each conveyance network component
- Per minute cost of each non-conveyance network component, for e.g., directory enquiries, operator assistance, etc.
- Other costs split into appropriate categories (split into an average per minute cost where applicable)
- Routing factors for traffic

- Time of day gradients
- Final charges
- International out payments

However, as per the Determination on separated accounts, The Office will treat the Mobile Network Statement of Cost as confidential. For the avoidance of doubt, the Office will not publish the statement of cost for the mobile network services. Nonetheless, the **mobile network statement of cost should contain sufficient explanatory information to enable The Office to fully understanding the information presented.**

4.7 In the case of the fixed network statement of cost, sufficient explanatory information should also accompany the statement to assist the Office and interested parties in fully understanding the information it contains.

Statement of Retail Service Unit Costs

4.8 A Statement of Service Unit Costs detailing the unit costs of supplying certain services should be submitted on an annual basis. Cost should be split into two parts, operating cost and the cost of capital employed (i.e. capital employed times the weighted average cost of capital). A sample of this statement with the list of services for which unit cost information should be provided is set out in **Annex IX.**

Explanatory Notes to Regulatory Financial Statements

4.9 The Office and members of the public, upon review of these financial statements should be able to have a full understanding of the information contained within these accounts. For this reason, it is important that the accounts be accompanied by explanatory notes which include, but are not limited to, the following:-

(i) a detailed statement of the regulatory accounting principles used in the preparation of the accounts.

(ii) definitions of the main businesses and where applicable the disaggregated service categories of each main businesses.

(iii) detailed statements of the transfer charging system used in the preparation of the accounts **(Annex X).**

(iv) details of material changes which impact on the financial statements for a given period and on comparative figures for the previous period.

Annex I: Definitions of Main Businesses

Fixed Access Business

Business containing all the revenues (installation, rental, relocation, reconnection, etc) from access, as well as the costs, assets and liabilities associated with supplying connections and maintenance of ordinary business and residential exchange lines, including the low user tariff or any special tariff plan, domestic and international toll free lines, foreign exchange lines, and direct inward dialing lines and other access line technologies such as Integrated Services Digital Network (ISDN).

Costs cover the non-traffic sensitive, i.e., the line sensitive cost including the cost of the local loop, and line card, and maintenance expenses incurred in providing access to customers up to the Network Termination Point (NTP). Other elements of costs are billing, bad debt, and a reasonable apportionment of common costs.

Fixed Network Business

Business containing the costs, revenues, assets and liabilities associated with the provision of network services to other operators and downstream Businesses provided by C&WJ. Revenues are chiefly the amount due from interconnected operators for use of C&WJ's fixed network and the transfer charges from C&WJ's other Businesses. Costs are capital and operating costs for switching, transmission and other apparatus and system used in supplying services. Costs should be built up from network component costs such as local switching, tandem switching, and transport.

Mobile Business

Business containing the revenues, costs (including a reasonable return on capital employed), assets and liabilities associated with the provision of mobile network services to other operators and C&WJ's own downstream Businesses and mobile retail services. The service categories making up Mobile Business are interconnection services, such as call termination, connection charges, roaming, subscription charges, rental, lease and sale of equipment and handsets calls originated on mobile network but terminating overseas, or to a fixed (mobile to fixed calls) or mobile subscriber in Jamaica (mobile to mobile calls). It also contains revenues and costs associated with incoming calls to mobile subscribers.

Fixed Retail Services Business

Business containing the costs, revenues, assets, and liabilities associated with the provision of retail calls over the fixed network, i.e. calls originating from a connection to the fixed network but terminating either on the fixed or mobile network. Revenues are payments to the company by users of plain old telephone service (POTS) including revenues from calls made from a fixed connection to mobile customers. Costs are the non-access line related switching costs, and transmission links between switches (transfer charges from Network Business). Added to these costs are retail costs and a reasonable apportionment of common or joint costs.

Annex II: Definitions of Disaggregated Service Categories

Below are the disaggregated service categories making up the Fixed Retail Services Business:

<u>Domestic Calls</u>

Calls from a connection to the fixed network originating in one parish to a connection to the fixed network in the same or another parish.

<u>Fixed to Mobile Calls</u>

Calls originating from a connection to the fixed network but terminating on any mobile network

<u>Data Communications</u>

Business containing the revenues, costs (including a reasonable return on capital employed and expenses incurred for repair and maintenance), assets, and liabilities associated with the provision of circuits and packet switched services. Revenues are the one time installation charges, monthly rental and payments for domestic and international usage.

Rental, maintenance, installation, relocation of domestic and international leased circuits. The costs and revenues should be recorded.

Rental, maintenance, installation, relocation of domestic and international connectivity to database and other high volume applications such as radio broadcasts, electronic file transfer, electronic mail, video conferencing, etc. At present CWJ offers two categories of service: National Packet Switch Services (NDAS), and International Packet Switch Service (IDAS)

<u>Directory Enquiries (DQ)</u>

Domestic calls placed with C&WJ's operator to obtain information about Jamaican and overseas telephone numbers, whether made from business or residential exchange lines or from public payphones and includes calls made to the Directory Enquiry database.

<u>International Calls</u>

Calls originating from a connection to the fixed network and mobile network connection in Jamaica to a connection outside of Jamaica, as well as wholesale minutes (including sale to mobile service providers) to a connection outside of Jamaica. It also includes calls originating from a connection overseas to a connection within Jamaica. The revenues, cost, liabilities and assets relating to international call origination should be separate from international call termination.

International Outgoing Call (origination): The service of originating a telephone, fax or other telecommunication call from the calling party to a called party outside of Jamaica.

International Incoming Call (termination): The service of terminating a telephone, fax or other telecommunication call from the calling party to a called party in Jamaica.

<u>Internet service provision (dial-up, and ADSL)</u>

Internet service is provided by dial-up access via the local loop (telephone line) or ADSL High Speed Internet Service which converts the existing local loop into a high speed Internet connection.

<u>Supplemental Retail Services</u>

Business containing the revenues, costs (including a reasonable return on capital employed), assets, and liabilities associated with the provision of downstream services not covered in Retail Services Business. This Business comprises various services for which there are no legal barriers to entry, for example international pre-paid calling cards. The retail services are Magic Touch (call waiting, three way calling, call forwarding), Teleclass (caller identification, automatic busy redial, priority ring, automatic callback, selective call rejection, selective call forwarding), emergency calls and national & international freephone, etc.

<u>Remaining Services</u>

Business containing the revenues, costs (including a reasonable return on capital employed), assets, and liabilities not covered under the other six Businesses. These include the activities of, and dividends received from INTELSAT, etc.

- Pre-paid calling cards (domestic & international);
- Voicemail (In Touch Personal, In Touch Family, In Touch Extended Family, and In Touch Executive)
- New and existing data services

Annex III: Main Businesses & Disaggregated Service Categories

Main Business Areas	***Disaggregated Service Categories***
Fixed Access Business	-
Fixed Network Business	-
Fixed Retail Services Business	Domestic Calls Fixed to Mobile Calls International Outgoing Calls International Incoming Calls Directory Enquiries (DQ) Data Communication Services Internet service provision (dial-up, and ADSL) Supplemental Retail Remaining Services
Mobile Business	**-**

Annex IV: Statement of Profit & Loss for Year Ended ……………….

Business/Service Category	Notes	Previous Year	Current Year
Turnover			
Transfer charges to other Business			
From other operators			
Other Revenue			
Total Turnover			
Operating costs			
Transfer charges to other CWJ Businesses			
Payments to other operators			
Other operating costs			
Total operating costs			
Return ($)			
RETURN ON MEAN CAPITAL EMPLOYED			
Return on mean capital employed			
Return (%)			

Annex V: Statement of Mean Capital Employed for year ended………………..

Business/Service Category	Notes	Previous Year	Current Year
Fixed assets			
Tangible fixed assets			
Intangible fixed assets			
Total Fixed Assets			
Current assets			
Stocks			
Debtors			
Cash at bank & in hand			
Total current assets			
Creditors			
Other liabilities & charges			
Mean Capital Employed			

Annex VI: Reconciliation – Statement of Profit & Loss for year ended……………………..

	Turnover	Operating Costs	Return
Businesses			
Fixed Access			
Fixed Network			
Fixed Retail Services			
Mobile Business			
Total Regulatory Accounts			
Reconciling items & Adjustments			
“			
“			
“			
As in the Annual Report & Statutory Accounts			

Annex VII: Reconciliation – Statement of Mean Capital Employed for year ended……………………..

	Previous Year	Current Year
Mean Capital Employed of the Businesses		
Fixed Access		
Fixed Network		
Fixed Retail Services		
Mobile Business		
Total Regulatory Accounts		
Shareholders' funds as in Annual Statutory Accounts		
Reconciling items & Adjustments		
"		
"		
"		
Total as in Annual Statutory Accounts		

Annex VIII: Statement of Costs for Fixed Network Services

	Network elements				Unit service cost
	Local switch	Tandem switch	Transport	Others (to be specified)	
Unit network element cost	A	B	C	D	
Interconnection services (to be specified)	Usage factors				
1	E	F	G	H	a*e + b*f +c*g + d*h
2	I	J	K	L	a*i + b*j +c*k + d*l
Etc					etc

Annex IX: Inter Business Costs Summary

From/To → ↓	Fixed Access	Fixed Network	Fixed Retail Services	Mobile Business	**Total**
Fixed Access		X	X	X	**X**
Fixed Network	X		X	X	**X**
Retail Services	X	X		X	**X**
Mobile Business	X	X	X		**X**
Total	**X**	**X**	**X**	**X**	**X**

Annex X: Statement of Transfer Charges

Costs/Services	***Fixed Retail Services***	Domestic calls	Calls to Mobile	Directory Enquiry	International Outgoing Call	International Incoming Call	Data Circuits	Internet Serv.	Supplemental Retail	Remaining Services	***Mobile Business***
Fixed Access	X	X	X	X	X	X	X	X	X	X	*X*
Fixed Network	X	X	X	X	X	X	X	X	X	X	X
Fixed Retail Services	X	X	X	X	X	X	X	X	X	X	X
Mobile Business	X	X	X	X	X	X	X	X	X	X	X
Total	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**

Annex XI: Statement of Selected Service Unit Costs for year ended ………..

	Operating costs	*Cost of capital employed*	*Total*	*Volume*	*Unit cost*
Fixed Access					
Domestic calls					
National DQ					
International DQ					
Fixed to mobile Calls					
International Outgoing					
International Incoming					

Annex XII: Regulatory Accounting Principles

Priority
Within the Regulatory Accounting Principles, insofar as there is conflict between the requirements of any or all of these Principles, the Principles are to be applied in the same order of priority as that in which they appear in this document.

Definitions
Any word or expression used in the Accounting Documents shall, unless the context otherwise requires, have the same meaning as it has in the Telecommunications Act (rules, regulations, etc?).

Causality
Revenue (including transfer charges), costs (including transfer charges), assets and liabilities shall be attributed to cost components, services and businesses or disaggregated businesses in accordance with the activities which cause the revenues to be earned or costs to be incurred or the assets to be acquired or liabilities to be incurred.

Objectivity
The attribution shall be objective and not intended to benefit the dominant carrier or service provider or any other carrier, product, service, component, business or disaggregated business.

Consistency
There shall be consistency of treatment from year to year. Where there are material changes to the Regulatory Accounting Principles, the Attribution Methods, or the Accounting Policies that have a material effect on the information reported in the Financial Statements the information affected by the changes shall be restated.

Transparency
The Attribution Methods used should be transparent. Costs and revenues, which are allocated to Businesses and activities, shall be separately distinguished from those that cannot be directly allocated.

Sampling
The sample shall be constructed to meet the following principles:-

(vii) it is unbiased/objective
(viii) the sample size has been assessed to be statistically significant
(ix) it is representative of the entire population
(x) it is not skewed by seasonal or other factors
(xi) it is based on either generally accepted statistical techniques or other methods which should result in the accurate attribution, and

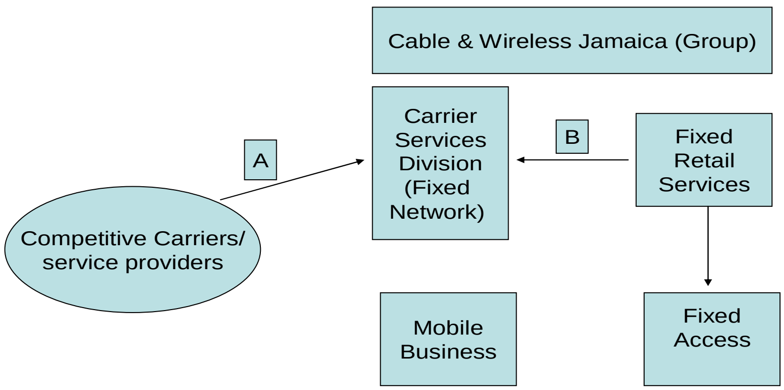
(xii) it will be updated annually.

Where sampling is used to derive the attribution of costs, revenues, assets, liabilities, etc it shall be based either on generally accepted statistical techniques or other methods designed to deliver equivalent results of revenue (including transfer charges), costs (including transfer charges), assets and liabilities.

Annex XIII: Transfer Charging Principles

The system of transfer charges apply to transactions between a main business area and a disaggregated activity. The follow diagram gives an example of this principle.

Figure 1:



The Carrier Services Division (CSD) supplies various products and services under the existing RIO and generally on a wholesale basis to other carriers and service providers. A payment for a given service by a competitive service provider at "A" to the CSD division (say a minute of international gateway switching), should be equivalent to the internal transfer charge paid at "B" by the Fixed Retail Services Division for the same service.

The following are the relevant principles:

(i) Transfer charges (revenues and costs) shall be attributed to cost components, services and main business areas or disaggregated businesses in accordance with the activities which cause the revenues to be earned or costs to be incurred.

(ii) The attribution shall be objective and not intended to benefit any business or disaggregated business.

(iii) There shall be consistency of treatment of transfer charges from year to year.

(iv) The transfer charging methods used should be transparent. There should be a clear rationale for the transfer charges used and each charge should be supportable.

(v) The transfer charges for internal usage should be determined as the product of usage and unit charges.

(vi) The charge for internal usage should be equivalent to the charge that would be levied if the product or service were sold externally rather than internally. For accounting separation purposes, it should be assumed that the retail business pays the same interconnection charge for the same service as set out in the Reference Interconnect Offer. If different this charge must be appropriately justified.

(vii) The separated accounts shall disclose the transfer charges between businesses and disaggregated businesses.

Annex XIV: Cost Accounting Systems

The information given in this section constitutes a general guide in relation to the development of the cost accounting separation systems.

Developing an Accounting Separation System

Fundamentally, a cost accounting system embodies a set of rules that have as the main objectives, the proper attribution and allocation of revenues, costs, assets, liabilities and capital employed to each activity, network element, service or product. Emphasis is placed on direct and indirect operating costs of services.

The mechanisms of the cost accounting systems will enable interested parties (including C&WJ), to appropriately associate and allocate items of cost to the activity causing that cost. A properly constructed system of regulatory accounts should include rules for a cost accounting the system that should be able to disaggregate costs to ensure that costs allocated to regulated services do not result in cross subsidies, excessive prices or other anticompetitive effects.

Development of a cost accounting system will involve the following steps:

- Identification of the types of costs;
- Identification of the directly attributable costs;
- Identification of indirectly attributable costs;
- Development of rules of allocation of common and joint cost to services;
- Evaluation of cost of capital and capital employed; and
- Definition of transfer charges.

Identify Types of Costs

There are two basic types of costs: (1) allocated direct; and (2) allocated indirect, in addition to joint/common costs. Direct costs are those costs that can be directly identified with providing a type of service, product or network element. Costs allocated indirectly are related costs that cannot be directly identified with providing a specific type of service. Joint/common costs are costs assignable to two or more services, products, operations, business units etc., of the company.

Identification of Directly Attributable Costs

Budgeted expense and equipment costs that could be directly identified with providing a specific type of service were accumulated to determine total allocated direct cost by type of service.

These are budgeted expenditure, network and equipment costs that could be directly linked to a product or service requiring apportionment. The following costs are usually included:

- (annualised) costs of equipment specific to the service and directly related costs such as installation; and
- network related operating costs (such as maintenance).

Identification of Indirectly Attributable Costs
These are budgeted expense, equipment and personnel costs that could be indirectly identified with providing a specific type of service. That is, indirectly attributable costs are those costs that are allocated to products or services on a measured non-arbitrary basis reflecting the association of such costs with directly attributable costs. These include most network costs, example, transmission equipment which will be shared by services using cost-allocation parameters such as routing factors.

Both directly and indirectly attributable costs fall into one of two categories, those varying with output (variable costs) and those that do not vary with output (fixed costs).

Identification of Joint/Common Costs
These are costs not clearly directly or indirectly attributable any product or service and as such, are usually attributed on an arbitrary basis. However, for regulatory purposes, a clear set of rules must be developed for allocating these costs.

Rules for Cost Allocation of Common/Joint Costs
In the absence of a clear methodology for allocating costs between regulated activities and unregulated activities, the dominant operator may not allocate costs to each activity in a proportionate and objective way. It is necessary to group common costs in homogeneous categories in order to facilitate the proper allocation to specific regulated and unregulated services. The following hierarchy will dictate the allocation of common costs between regulated and unregulated services:

(i) Whenever possible, common cost categories shall be allocated based upon direct analysis of the origin of the actual costs.

(ii) If this is not possible, common cost categories shall be allocated based upon an indirect, cost-causative linkage to another cost category (or group of cost categories).

(iii) In cases where neither direct nor indirect measures of cost allocation is possible, the cost category shall be allocated based upon a cost driver computed by using the ratio of all expenses directly assigned or attributed to regulated and non-regulated activities.

Evaluation of Cost of Capital and Capital Employed
Based on the price cap consultation undertaken prior to the commencement of C&WJ's first price cap plan in 2001, the methodology that was established for evaluating cost of capital will be retained. In terms of capital employed, this should be evaluated based on current costs.

Definition of Transfer Charges

As part of its accounting information the Office has determined that C&WJ should provide a detailed description of the process and methods used for deriving internal transfer charges between its network business (fixed and mobile) and its other Businesses or service categories. That is, a clearly defined system of transfer charges must be applied to services and products supplied by one business unit to another. It is absolutely necessary that such a charge for internal usage should be equal to the charge to other service providers or carriers. Transfer charges should be justifiable, non-discriminatory and transparent. Additionally, transfer charges should be treated in a consistent manner from year to year. Any proposed changes to this or any other methodology must be subject to consultation.

Cost Allocation Process

The cost allocation process described herein is based on best practice but the actual allocation process may vary depending on the C&WJ's actual data collection procedures. The more details presented, the more likely it is that the users of the information will be confident that it is credible. It is always preferable to perform an allocation using a number of direct or indirect attributions rather than through a single arbitrary step. Thus, for each step outlined in this section, the Office anticipates that more details would be provided on the attribution process rather than lumpy allocations. The Office's confidence in the regulatory accounts will depend on the extent to which all the regulatory principles outlined in this document are adhered to, and the extent to which the supporting documentation and assumptions are comprehensive and auditable.

Costs may be attributed either directly to products/services or to one of three cost pools: network components, related functions or other functions. These are defined as follows:

Network components

This pool contains the costs relating to the various components of transmission, switching and other network plant and systems. The costs will be in respect of network components that cannot be attributed directly to a particular service as they are utilised in the provision of a number of services.

Related functions

This pool contains the costs of functions necessary for the provision of services to the customer such as billing, maintenance, and customer services.

Other functions

This pool contains the costs of functions that are not related to the provision of particular services but are an important part of the operations of the company. Examples of such costs include planning, personnel and general finance.

The objective of the cost allocation process is to ultimately allocate all costs to the relevant product/service and then allocate the cost of services to the relevant business area. Each allocation is made by applying the appropriate drivers. The allocation steps are as follows:

Step 1: The allocation of other functions across related functions, network elements and services.

Step 2: The allocation of the related function costs to services and the network elements.

Step 3: The allocation of network components to services.

Step 4: The grouping of services into businesses (as defined for the purposes of accounting separation).

Undoubtedly, C&WJ will need to use sampling techniques in order to allocate costs to various services. As noted in Appendix XII, all samples should be constructed to be unbiased/objective, with a sample size that is statistically significant and representative of the entire population, and is not skewed by seasonal or other factors.

It must be emphasized that, although the specific details of the allocation process may differ from what is outlined above, the process is not expected to deviate significantly from that which is outlined in these Guidelines.

Annex XV: Principle of Cost Causality

For regulatory purposes, the preparation of regulatory financial statements is carried out in accordance with a defined set of principles including attribution and valuation methods. Cost causality is the key regulatory accounting principle used to determine the most appropriate attribution method.

The Office will not attempt to prescribe or specify a detailed costing systems and methods to be employed in preparing the required financial statements. It is sufficient to note that the use of activity based costing (ABC) techniques is consistent with the principle of cost causality and acceptable to the Office. However, this should not be interpreted to mean that the Office will accept the cost categorization or values suggested by C&WJ. Each item of cost and its allocation will be subject to review by the Office to ensure that they are appropriately allocated and valued. Nonetheless, the Office expects that C&WJ will:

- Review and justifies each item of cost, capital employed and revenue;
- Establish the driver that caused each item to arise;
- Use the driver to allocate each item to individual businesses /activities/ network components or services; and
- Clearly and transparently document the process and rationale used.

Although the ABC methodology will be able to allocate most costs based on causality, common/joint costs cannot be allocated by this methodology. However, these costs are not expected to constitute no more than 10% of total costs. Although these costs may be apportioned based on various methodologies, the Office prefers the use of the equi-proportional pricing rule since different accounting rules may lead undesirable results. The equi-proportional pricing rule may have advantages in that it maintains the proportionate relationship in the cost of the different products/services, may minimise the size of the common cost increment and is also viewed as non-discriminatory. The non-discriminatory characteristic is particularly important since dominant carriers would have the incentive to allocate lower levels of common costs to products which are supplied internally, and higher levels of common costs to wholesale service supplied to competitors in downstream markets.

Against this background, the Office must carefully scrutinise this cost category to ensure that residual historical costs are not erroneously or otherwise, placed in it.

In relation to the applicable costs drivers, the Office expects that a complete list will be submitted for its assessment well in advance of the end of the end of financial period to be reviewed.

Operating and Capital Costs

The following tables provide some examples of possible allocation of both capital and operating costs.

Table 1: Possible Method of Allocating Operating Costs

Category of Operating cost	Description	Method of Allocation	Principal Businesses
Depreciation	Depreciation	The allocation of depreciation should follow the allocation of the fixed assets to which it relates.	All
Maintenance and repair costs	Payroll costs	Direct to network components/other plant where possible; otherwise allocate based on the time spent carrying out maintenance and repair work.	Core Network, Local Access-Network, Mobile
Network planning and developments costs	Payroll and external costs	Direct to network components/other plant where possible.	Core Network, Local Access-Network, Mobile

Cost of Capital

In determining the cost of capital, three pieces of information is critical:

1. The values of equity and debt;
2. The cost of equity; and
3. The cost of debt.

As per the initial price cap plan, the weighted average cost of capital (WACC) is calculated using this information. The standard formula for this calculation is:

$$WACC = re * E/(D+E) + rd * D/(D+E) * (1-T)$$

where re is the cost of equity, rd is the cost of debt, E is the total value of equity, D is the total value of interest-bearing debt and T is the corporate tax rate. This calculation gives the post tax WACC which needs to be converted to the pretax rate (i.e. WACC post tax divided by (1-T)).

Due to the varying risk profile of some business areas, namely the mobile business, the Office may consider the application of different costs of equity in such cases.

Capital Valuation and Allocation

The Office takes the view, that the appropriate standard for capital valuation for regulatory purposes is the economic value of capital. This reflects the value of modern equivalent assets (“MEAs”), which can efficiently use latest technology to perform the same functions as existing assets.

C&WJ re-values its assets each year to put them on a current-cost basis. Except for the review conducted in 2002/2003, this valuation has historically been carried out with minimal regulatory supervision. The Office has decided to base its regulation of future rates on its own evaluation of the economic value of capital. Otherwise, asset overvaluations by C&WJ in the past could lead to excessive rates for many more years. The Office intends to review the economic value of capital on an annual basis, prior to the audit of separated accounts.

In relation to the apportionment of this value to the various business areas, this should be done on a causal basis. Table 2 provides some examples of the possible allocation of capital employed.

Table 2: Possible Method of Allocating Capital Costs

Category of assets and liabilities	**Description**	**Method of Allocation**	**Principal Businesses**
Transmission equipment	Traffic-sensitive transmission equipment	Direct to network components where possible, otherwise allocate based on the usage of circuits.	Core Network
	Cable and wire	Direct to network components/other plant where possible; otherwise allocate based on the time spent carrying out maintenance and repair work.	Core Network and Local Access-Network
	Local loop equipment	Direct to network components/other plant where possible.	Core Network and Local Access-Network
	International/submarine cable	Direct to network components where possible, otherwise allocate based on usage.	Core Network

Annex XVI: COST ACCOUNTING PRINCIPLES

Asset Valuation

A. XVI. 1 This section of the Guidelines mirrors the Office's views on asset valuation as expressed in its Determination Notice "Principles and Methods of Asset Valuation for Regulatory Purposes, July 31, 2003". All the decisions outlined in this Determination Notice are still applicable.

A. XVI. 2 In carrying out its responsibility to regulate the Jamaican telecommunications sector, the Office took the view that it needed to establish the true economic value of C&WJ's assets, especially given its responsibilities to establish a price cap regime and to approve interconnection charges. Some of the factors that are critical in determining the economic value of assets are discussed below.

Current Cost Accounting (CCA) Vs Historical Cost Accounting (HCA)

A. XVI. 3 In general there are two approaches in preparing regulatory accounts: (i) Historical Cost Accounting, and (ii) Current Cost Accounting. In some jurisdictions regulatory statements are prepared using both standards. Under the Historical Cost Accounting method ("HCA"), gross assets are valued at their original cost and net assets are valued at original cost less accumulated depreciation.

A. XVI. 4 With Current Cost Accounting ("CCA"), gross assets and accumulated depreciation are revalued each year. They are both increased or decreased by the same proportion to reflect yearly valuation of assets. As a result of yearly revaluation, net plant, which is the difference between revalued gross plant and revalued accumulated depreciation, increases or decreases by the same proportion. Depreciation expense on a forward-going basis also increases or decreases in this same proportion.

A. XVI. 5 In addition, under CCA, asset revaluations do not result in any reported change in operating profits or net income (at the time of the revaluation). On the contrary, they are treated simply as adjustments that make the accounts continue to reflect the *real* value of assets—even though prices in the general economy have changed. In general, the assets of a company are considered beneficial to its stockholders. According to the CCA perspective, the amount of that benefit is related to the *real* value of the assets—not the nominal value.

A. XVI. 6 Finally, with CCA, an accounting entry is needed to offset the change in asset values resulting from revaluation. Otherwise, the revaluation would lead to a change in the reported value of retained earnings on the balance sheet. The term “holding gains” or “holding losses” is sometimes used for this entry, depending on whether assets have been revalued upward or downward.

Modern Equivalent Assets

A. XVI. 7 In terms of asset valuation, the preferred measure from the economic perspective is Modern Equivalent Asset (MEA). Under MEA the asset in place is valued at the cost of replacing it with the asset incorporating the cheapest proven technology that serves the same function. Where technology is rapidly changing, as in telecommunications the MEA would often embody a more up-to-date technology than the firm’s existing assets. Finally, for a company’s asset valuation to be consistent with MEA principles current cost accounting is the appropriate standard of accounting for determining gross and net value of plants.

A. XVI. 8 The “economic value” of existing assets (embedded plant) is essentially the current cost of replacing the plant with one of the same functionality. Thus, the first step in establishing economic value is determining the cost of replacing existing assets with new assets that have the same functionality. An alternate valuation concept that is worthwhile noting is reproduction cost. This is the cost of replacing embedded plant with new plant of the same type and is therefore not the same as replacement cost, which is the cost of replacing plant with new plant that has the same functionality (and may be more cost effective than the same type of plant). Reproduction cost reflects some of the effects of technological progress. These real price reductions would be reflected in a reproduction cost index.

Economic Depreciation

A. XVI. 9 Annual economic-depreciation expense is the change in economic value of embedded plant during a particular year. Accumulated economic depreciation is the total reduction in economic value of embedded plant since its purchase. Plant suffers from obsolescence and physical wear and tear, the effect of which is that they are worth less over time. Additionally, economic depreciation also results from changes in replacement costs over time. In particular, if the price of new equipment falls, the replacement cost of embedded plant falls. That, in turn, leads to economic depreciation and a reduction in the economic value of embedded plant. On the other hand, if the price of new equipment rises, there is an increase in replacement cost, which reduces economic depreciation. If the prices of new equipment rise sufficiently rapidly, economic depreciation may actually be negative.

A. XVI. 10 Economic depreciation of telecommunications equipment derives primarily from technological progress. Such progress often reduces replacement costs over time. It also leads to the development of MEAs, which directly lower economic values of embedded plant and additionally may be the primary factor limiting the economic life of embedded plant.

A. XVI. 11 A first step in calculating economic value of embedded plant is calculating replacement cost. Certain adjustments are then made to this calculation to approximate economic value. Adjustments are normally done in order to reflect the following considerations:-

(i) embedded plant has a shorter remaining economic life than does newly purchased plant; and
(ii) embedded plant may have undergone physical deterioration and therefore have higher maintenance costs than newly purchased plant.

A. XVI. 12 For these reasons, embedded plant generally has a lower economic value than newly purchased plant. These adjustments suffice if embedded plant is replaced with plant that is identical, except that it is new. In some instances, however, it would not be cost-effective to replace embedded plant with the same type of plant. It would instead be cost-effective to replace it with "Modern Equivalent Assets" ("MEAs").

A. XVI. 13 Where replacing embedded plant with MEAs would be cost-effective, a further adjustment must then be made to replacement cost to get economic value since a new plant would embody valuable features that embedded plant does not have. Such features may increase revenues and/or reduce operating costs.

A. XVI. 14 Several overseas jurisdictions (e.g. UK, Ireland, Australia) have used the MEA approach when estimating the replacement cost of particular assets. This gives credence to the Office's view that where the progress of technological is substantial, MEA is an appropriate basis for determining true economic costs of assets.

A. XVI. 15 Based on the foregoing, the Office determined that:

For those categories of telecommunications equipment that are subject to rapid improvement in technology,

Modern Equivalent Asset (MEA) value shall apply for regulatory purposes.

Conclusion

A. XVI. 16 For regulatory purposes, the most appropriate principle for asset valuation is Modern Equivalent Asset and in order to arrive at the true MEA values it is necessary to incorporate economic depreciation. MEA value and economic depreciation are consistent with the principle of Current Cost Accounting. The goal is to approximate the value of assets to their true economic costs and the best measure from the economic perspective is Modern Equivalent Asset (MEA).