FTC'S POSITION PAPER ON PREPAID CALLING CARDS

1.0 Background

Entry to the market for prepaid calling cards is being sought by two potential suppliers, Canadian Caribbean Investment Enterprise Limited and Telecard International Limited. The single existing supplier in the market is Cable and Wireless (C&W), the public telephone operator (PTO). The potential entrants have complained that they are being kept out of the market by C&W. These companies, and potentially other suppliers of prepaid calling cards (PCC), would like to provide a product which would afford access to international telephone service from Jamaica. That is, the independent prepaid calling card providers want their customers to be able to initiate calls from Jamaica, using the Cable & Wireless telephone network.

The complainants alleged that C&W is abusing its position of dominance by barring them from entering this market. Under Section 20(1)(a) of the **Fair Competition Act (FCA)**, an enterprise abuses its position of dominance if it restricts the entry of any person into any market.

The counter claim by C&W is that it has not abused a position of dominance since1:

- under its external telecommunications licence, it has the exclusive right to provide external telecommunication services to the Jamaican public.
- prepaid calling card is not a service, it is merely a mode of payment.
 Where a prepaid calling card is used to make international telephone calls from Jamaica, the service is plainly international voice telephony.
- even if prepaid calling card was a value added service, it would still be illegal to provide that service in violation of C&W's External Licences.

¹ See the letter from the Attorney for telecommunications of Jamaica Limited (now Cable and Wireless Jamaica Limited) dated January 20, 1998.

In conducting this investigation, the Staff must determine the following:

- are the two products; prepaid calling card (PCC) and plain old telephone service (POTs)², two distinct products?
- does C&W have an exclusive right to supply PCC?

If there are two distinct products and C&W does not have an exclusive right to supply PCC, the Staff must demonstrate the impact that C&W's strategy is having or likely to have on the market.

2.0 Dominance

The incumbent Public Telephone Operator (PTO), Cable and Wireless Jamaica Limited, continues to insist that the provisions of its licences entitle it to provide certain telecommunications services exclusively. The particular licence of concern is the External Telecommunications Services Special Licence issued in 1988. This exclusive licence was issued under Section 6(1) of the Radio and Telegraph Control Act of 1972, which states:

"Notwithstanding the provisions of section 5, the Minister may grant to any applicant a special licence whether exclusive or non-exclusive, to establish, maintain or use any radio or telegraph station or apparatus. . . ."

Therefore, for an independent provider to supply telecommunication services which rely on the use of radio stations or radio apparatus, or telegraph stations or telegraph apparatus, that supplier must do so by obtaining access to the PTO's network. This exclusivity places C&W in a dominant position with respect to the provision of services via the telephone network. However, the Radio and Telegraph Control Act does not address the provision of services. Therefore, any licence issued for the provision of services under this Act cannot bestow exclusivity on the licensee³.

² Widely regarded as basic telephony. That is, the supply of dial tone via a wire connection facilitating voice telecommunication.

³ The issue of exclusivity encompasses legal analysis; hence, a comprehensive assessment of this issue is beyond the scope of this paper.

3.0 Value-added Services and the World Trade Organisation (WTO)

In order to define value-added services it is important to expound on the definitions and distinction between plain old telephone service and basic telephone service. Plain old telephone service can be defined as a wire telephone line which gives access to a dial tone.

This allows the user to send and receive calls. The interconnection of POTs to fiber optics cable, satellite or similar networks, allow the POT's user to make international calls.

What has become known as basic telephone service is in fact plain old telephone service with the additional features (such as call waiting and call forwarding). Although these features add value to the service, they are not currently viewed as separate products that could be opened to competition. That is, given the level of technology, it might not be technically feasible for suppliers other than the PTO to provide call waiting and/or call forwarding as independent products.

Generally, value-added telecommunications services are those services which rely on the use of POTs but are separate and distinct from POTs. As the term suggests, these services provide the consumer with value beyond that which is offered by POTs. An example is the Internet Service. Internet service providers (ISPs) offer a service which allows consumers to connect to the World Wide Web (a group of interconnected networks, collectively called the Internet) through the use of POTs. The user can send and receive electronic mail and data by connecting a computer via a modem to an ordinary telephone line. This service is a separate product from POTs but rely on interconnection and connection to the public telephone network, by the ISP and the user respectively.

Some value-added services in some countries are viewed as basic services. The World Trade Organization had the following to say on this issue:

"Any member has the right to define the kind of universal service obligation it wishes to maintain. Such obligations may not be regarded as anti-competitive per se, provided that they are administered in a transparent non-discriminatory and competitively neutral manner and are not more burdensome than necessary for the

Jamaica has the option of defining the type of basic or universal service along those lines described above. What therefore constitute basic service is a policy decision which is outside the purview of the telephone provider(s). This is decision would be influenced by the fact that there is a general global trend towards the introduction of competition in the telecommunications market due to the actual benefits that have accrued to those who have gone this route.

Based on the above assessment of value-added services, the question is: Are calling cards plain old telephone service or value-added?

4.0 The Mechanics of Prepaid Calling Cards

International calling cards are used to access the service provided by calling card providers in conjunction with the incumbent Public Telephone Operator (PTO). Since the PTO has the exclusive right to establish, maintain and operate radio stations and apparatus, provision of an international service must be done through them. However, with respect to completing a call, the independent calling card provider can make his own arrangements with the internet carrier of his choice (that is, a carrier that is connected with C&W) designated by the PTO⁵. This and other factors could result in the provision of prepaid calling cards by independent carriers at a lower price than the PTO.

The system that facilitates the use of prepaid calling cards is as follows:

The main part of the system is composed of a switch, whether a PC-Based switch with limited capacity or an integrated telephone switch which will accommodate up to 800 users at the same time. In Jamaica's situation, the switch would be located in the countries where the calls should terminate⁶.

The company providing this service, buys (wholesale) a large number of telephone minutes from an international carrier (say MCI or SPRINT) in the country in which it is set up. The company also obtains a toll-free line from the

⁴ This is an extract from Jamaica's additional commitments as per its submission of a draft conditional offer a basic telecommunications to the World Trade Organization (S/6BT/W/I/Add. 45 - 14 February 1997).

⁶ This could be based on the cost factor and C&W's unwillingness to sell telephone minutes on a wholesale basis.

target market, in this case, Jamaica.

The cards are sold to the potential users in the target market and would be good to make calls to the country in which the prepaid calling card provider has purchased telephone minutes. In some cases, the international carrier from which the telephone minutes were bought, has bilateral arrangements with international carriers of other countries. These minutes are sometimes bundled with the contracting carrier's minutes, thus allowing users to make calls to third countries.

When the user from the target country dials the designated toll-free number he is prompted or requested to put in his personal identification number (PIN) number. At which time, in most cases, he is told the total usage time left on his card. The caller is then prompt to dial the number he wishes to call. The system will calculate the usage time based on the charge to the particular location (long distance or local).

The switch directs the calls and calculates and deducts the relevant amount from the purchaser's account based on time used up.

Therefore, the prepaid calling card provider is operating as a provider of calling cards which allow for convenient and possible cost savings when accessing the telephone network to POTs. Usually, these cards can be used from any telephone, public or private.

The cards are sold at various outlets in different denominations. The provider makes his money by selling cards at a markup on the cost of the "usage time" purchased and other cost.

It is apparent from the description of the system that a sole prepaid calling card provider would not be a supplier of telephone service per se. In fact, he only provides convenient access to that service supplied by the PTO, by way of prepaid calling cards. Without further analysis, it is clear that the PCC adds value to POTs. Prepaid calling card is therefore a value added product that is sold independent of POTs, in a different market which is not the exclusive domain of the PTO (C&W).

5.0 Market definition

5.1 Product Market

Generally speaking, a product market is defined as that group of products which consumers view as substitutable. The relevant product market in this

case is defined as the market for international telephone minutes. Access to these minutes is achieved in different ways. Some of which are: plain old telephone service, prepaid calling cards, and cellular service. All of these products would constitute the product market.

Given C&W's claim that POTs and PCC are the same product, this analysis must check the validity of this claim. According to the Company, their "World Talk Calling Card" is simply a mechanism that facilitates payment for the POTs they supply. Generally, POTs is paid for in arrears, while the PCC, as the name suggests, is a method of paying in advance for POTs.

5.11 Telephone calling Card Model

Assumptions:

- 1) The price (the per minute charge) of POTs and PCC are the same.
- 2) Plain old telephone service and prepaid calling cards are defined as one product, as suggested by C&W;
- 3) The consumer can choose between the POTs and PCC; and
- 4) The price of POTs is regulated and the price of PCC is not.

Based on the above assumption, the consumer will be indifferent to two items given that they derive the same level of utility from both and their prices are equal.

If we removing the assumption (1) - that the prices are the same, by making calling card's per minute charge greater than plain old telephone service, the demand for calling cards is expected to be zero. That is, the consumer will act rationally by selecting the service with the lowest price given that the expected utility from both are the same.

Therefore, assuming that the consumer can choose between both services, it follows that, if the per minute charge on prepaid calling cards is higher than that of plain old telephone service and demand for the former is greater than zero, then prepaid calling cards are sufficiently differentiated from POTs. That is, the utility derived from prepaid calling cards is not the same as that derived from POTs. In other words, given a higher price for PCCs, if the utility derived from it did not differ from that of POTs, the demand for the former would not exist. The obvious conclusion is that both items do not constitute the same product, thus removing assumption (2).

If we remove assumption (3) - that customers have access to both services, given that C&W is the only provider of PCC, they will have no incentive to increase the supply of POTs at the optimum rate⁷. This is so, since it is likely to be more profitable to supply telecommunications service by way of PCC, given the higher per minute rate.

Note that on one hand, POTs give you access to telephone minutes from a telephone line but the bill is to the individual renting the line. On the other hand, PCCs give access to telephone minutes from any plain old telephone line and the bill is simultaneously deducted from the total value of the card. Therefore, a critical feature of PCC relative to POTs is that, it allows access to telephone minutes at any plain old telephone access point without giving rise to concerns related to billing.

This additional value, 'over and above' plain old telephone service is attributed to the payment mechanism referred to by C&W. The additional convenience of making a telephone call from any location (private lines or call booths, locally or internationally) and being billed personally, is due to this payment mechanism. This simple model shows that we are examining two distinct products. These are, POTs, which has its restrictions depending on who owns the line from which the call is being made, and PCCs, which allows you to call from any plain old telephone at any location, up to the value of the card.

5.12 Demand Analysis

Since we are assessing two separate products with differing attributes, we are also examining two separate markets. These are the regulated market for POTs and the unregulated market for PCCs. The impact of these markets on each other will be discussed fully in the following section: Cable and Wireless, a Regulated Firm in an Unregulated market.

If the product market is defined narrowly, only including competing prepaid calling cards, given that they serve the same purpose (having similar attributes) they could be described as close or perfect substitutes. If two brands of PCCs have identical attributes, a change in the supply of one brand (PCC₂) is likely to affect the price of the other brand (PCC₁). The log-linear inverse demand curve for PCC₁ might be written as:

 $^{^{7}}$ The effect of removing this assumption is made clearer in Section 6.0 of this paper.

$$p_1 = a - bQ = a - b(q_1 + q_2);$$
.....(1)

where \mathbf{a} and \mathbf{b} are constants, and $\mathbf{q_1}$ and $\mathbf{q_2}$ represents the quantity (supply) of prepaid calling cards $\mathbf{PCC_1}$ and $\mathbf{PCC_2}$ respectively. A unit increase in the supply of either of the two cards, all other things being equal, will cause a reduction in the market price of $\mathbf{PCC_1}$ by the same proportion, \mathbf{b} .

By defining the market broadly we may include other value-added services such as cellular and satellite phones which offer a similar kind of mobility and flexibility in terms of access to the public telephone network, we are likely to find that such services would impact less on the price of PCCs.

This broad definition can be reflected in the inverse demand curve for **PCC**₁:

$$p_1 = a - bQ = a - b_1q_1 - b_2q_2;$$
(2)

where a, b_1 and b_2 are constants, $b_1 > b_2$, and q_1 , and q_2 represent the quantity of prepaid calling cards (PCC₁), and satellite and cellular phones respectively. Since b_1 , and b_2 represent elasticities and b_1 is greater than b_2 , an increase in the supply of satellite and cellular phone service is expected to have less of an impact on the price of PCCs than an increase in the quantity of PCC itself. This difference is rooted in the fact that both products offer the consumer different levels of utility. An important difference between the two products is that PCC only allow for the initiation of calls while satellite and cellular phones allow both initiation and receipt of calls. Additionally the recurring costs associated with satellite and cellular phones might act as a deterrent in substituting these services for PCCs.

Although the above-mentioned model cannot be tested due to the lack of relevant data, based on the above analysis, PCC and other services such as cellular are not perfect or close substitutes (given their attributes). Therefore, the price of PCC will be less constrained by an increase in the output of these services. The important point to note is that another prepaid calling card would be a close, if not perfect substitute, and could effectively constrain the pricing of C&W's "World Talk Calling Card⁸."

⁸ The definition of the product market in a broad or narrow sense is not critical to this analysis since C&W

Prepared by the Fair Trading Commission Jamaica. All Rights

5.2 Geographic Market

Since the relevant market is that for calls from Jamaica to an overseas destination, the geographic market is no larger than Jamaica. Further, since C&W has a licence to supply POTs throughout Jamaica⁹ and there is no restriction on the sale of prepaid calling cards except those imposed by C&W, the geographic market is Jamaica.

6.0 Cable and Wireless, a Regulated Firm in an Unregulated Market¹⁰

The purpose of regulation is to correct market inefficiencies, especially those that accompany the operations of a monopolist¹¹. If the monopolist is allowed to participate in unregulated markets without restrictions, this may nullify the effect of regulation in other markets.

Cable and Wireless (C&W) is regulated in terms of the tariff it charges on international voice telephony. However, with the launch of its prepaid calling card, World talk, C&W is now participating in an unregulated market (See Table 1).

TABLE 1.

DESTINATION OF CALL	REGULATED PRICE PER MINUTE (POTS)	UNREGULATED PRICE PER MINUTE (PCC)
FLORIDA	J\$34.05	J\$60.00
UNITED KINGDOM	J\$48.20	J\$60.00

controls access to all the possible competing markets. Further, C&W's history in the Jamaican market, they are likely to claim exclusivity for the competing products or services. Ultimately, access to the public telephone network is what is important if competition is to exist in the telecommunications industry.

⁹ The POTs network extends to all parishes in Jamaica.

¹⁰ For a more general analysis of this topic, see Economic Analysis Group Discussion Paper, **Regulated Firms in Unregulated Markets**: Understanding the Divestiture in the <u>U.S. v. AT&T</u>, by Timothy Brennan, U.S. Department of Justice, Antitrust Division, April 1986.

¹¹ A monopolist produces less output than the competitive amount, thus charging a higher price, and is therefore judged to be less efficient than a competitive industry.

SOURCE: Greater Kingston Telephone Directory, 1997 - 1998, Cable and Wireless Jamaica Limited.

C&W has an incentive to deter or limit access to entrants to the unregulated market (the market for toll-free lines), in order to reap monopoly profits otherwise restricted by the regulation. To meet this goal, C&W engaged a three-step strategy:

- 1. Enter the prepaid calling card market (the unregulated market) for which a toll-free line from the voice telephony network (the regulated product) is needed as an input. (In order to supply PCCs, access to the POTs network is vital. Further, the cost of providing PCC is directly related to the cost of procuring network access).
- 2. Given that the product (toll-free line) is homogeneous, it is difficult for C&W to charge potential competitors a higher cost or provide it at a lower quality than applicable to itself. In other words, C&W would find it difficult to discriminate against its unregulated competitors through the provision of toll-free lines. Since this is not feasible, C&W decided to refuse to make toll-free lines available to competing producers of prepaid calling cards; claiming that they have the exclusive right to supply this market.
- 3. Consequently, C&W has the ability to charge a price above the competitive level for prepaid calling cards. This can be done because C&W effectively controls entry into the market for PCC through its control of access to the telecommunication network.

In this way, C&W effectively "ties" purchases of its PCC, the unregulated product, to purchased of access to its international telecommunication network, the regulated product. Given this scenario, it is likely that the current price of C&W's prepaid calling card is above the competitive price.

Although PCCs providers must have access to C&W's network via a toll-free line, with respect to completing a call, the independent service provider is under no obligation to use the carriers designated by C&W. This is one factor that could result in the provision of prepaid calling cards by independent carriers or providers at a lower price than C&W.

The "tie-in" described above, is enforced by denying access to toll-free lines by potential entrants.

Hypothetical

In this hypothetical scenario, we assume, as is claimed in the case of C&W, that the PTO has exclusivity on the supply of international telephone service.

Further, the PTO's price for such services is regulated. Suppose the regulated price of toll-free lines is \$20 per minute, and that to provide PCC, one must spend an additional \$20 per minute with an expected minimum margin of \$10 per minute. A competing firm could provide PCC for \$50 per minute (the competitive price). However, because the PTO denies access to toll-free lines for this purpose, nothing would stop it from charging in excess of \$50 for its (the PTO's) PCC. Thus, the PTO is in a position to capture part of the value of its monopoly profit lost through regulation, by charging a price above the competitive price in the PCC market.

The harm to market resulting from this strategy may go beyond merely raising the price of the provision of the unregulated product. To the degree the regulated firm is successful in excluding or limiting the participation of competitors in the unregulated market, it is possible that more efficient providers of the unregulated product will be excluded. The implication is that not only will there be a loss in consumer welfare from higher prices, but the service itself may be produced inefficiently as a result. To achieve reduced prices and increased efficiency, competition in unregulated markets must be guaranteed.

7.0 The Benefits of Competition

The American Telephone and Telegraph Company (AT&T) maintained an absolute monopoly status in the United States telecommunications industry until the late 1960s when competition was introduced. The Federal Communications Commission (FCC) granted permission to MCI to provide microwave services. Although competitors began operating as early as 1969, AT&T was still able to maintain its dominant position. This was chiefly due to technical and regulatory obstacles which continued to shield AT&T from competition. As a result of filing suit against AT&T, the US Justice Department came to an agreement with the Company, which in part stipulated that AT&T divest its local telephone companies, and retain its long distance and manufacturing plants. At the same time, rules were crafted by the FCC to govern the interconnection of long distance service providers to the local area network ¹².

The advent of effective competition produced the following benefits:

- A significant increase in the penetration rate and subsequently an increase in traffic;
- Between 1982 and 1992, net additional employment in communications and information markets was approximately 420,000;
- The production of a variety of services and products in response to consumer demand; and
- The modernization of the network and improved quality of services.

¹² This information on Japan and the United States was mainly gathered from an article published on October 9, 1995, in the Financial Times.

Bermuda, an island here in the Caribbean could soon reap the benefits of competition in the telecommunication industry, as it recently took the decision to liberalise its international telecommunications market. This was done against the background of the claim by Cable and Wireless that it is the sole authorised international carrier in Bermuda with respect to international telecommunications services. Surely, this decision was based on the fact that the benefits to be gained from competition far outweigh any benefit from continued monopoly status.

8.0 Essential Facilities Doctrine and C&W's Obligation

In order to maximize the impact of the telecommunications industry on economic growth and development, barriers to entry¹³ must be minimized. That is, competitive markets are required. In certain markets, in order for competition to exist, access to essential facilities must be guaranteed. According to the World Trade Organisation:

Essential facilities mean facilities of a public telecommunications transport network or service that

- a) are exclusively or predominantly provided a single or limited number of suppliers; and
- b) cannot feasibly be economically or technically substituted in order provide a service.

A major supplier is a supplier which has the ability to materially affect the terms of participation (having regard to price and supply) in the relevant market for basic

telecommunications services as a result of:

- a) control over essential facilities; or
- b) use of its position in the market.

Although the WTO agreement is limited to specified commitments with respect to trade

to

¹³ Factors other than the incumbent's efficiency, preventing the forces of the market from allowing entry or facilitating the growth of existing firms.

in telecommunications services, the doctrine of essential facilities is generally used in assessing antitrust cases that relate to the granting of access to facilities which are deemed essential for competition to exist.

Given C&W's exclusivity with respect to the local telephonic system and the external telecommunication system, C&W could, and in fact has effectively prevented competition in the unregulated market for prepaid calling cards. With the exclusive licenses, C&W has absolute market power in the regulated portion of the telecommunication market. By disallowing interconnection of prepaid calling card providers to the public telephone network, C&W has effectively extended its market power to this market.

Under the essential facilities doctrine, the proprietor of an essential facility must make the facility available to competitors. "In the terminal railroad case, the court investigated a situation in which all the railroad bridges in St. Louis were owned by a group of railroads.¹⁴ The concern was that this control could allow the owning railroad companies to harm rival railroads. The court ruled that the owning group had to provide access to rival railroads on reasonable terms."¹⁵

According to a leading antitrust commentator, "the strongest claims of essentiality are resources that constitute natural monopolies or whose duplication is forbidden by law." ¹⁶ C&W's ownership of the public telecommunications network seems to fall in the latter category.

9.0 Abuse of Dominance

It has been shown that we are concerned with two distinct products POTs and PCC. Further, C&W does not have an exclusive right to supply PCC, which is a value-added service. However, this is not made clear in the licence, which was drafted in vague terms. The licence spoke to the provision of some telecommunications services but did not specify the particular services to be provided. To avoid future conflicts, it may be necessary to amend the licences, addressing the question of exclusivity as it relates to services.

Notwithstanding this, C&W's insistence that it is the only legitimate supplier of PCCs amounts to effective refusal to grant access to toll-free lines that facilitate entry into the PCC market, resulting in a lessening of competition in that market. C&W's ownership of the public telephone network places it in a position to restrict entry into

¹⁴ United States v. Terminal Railroad Association of St. Louis, 224 U.S. 383 (1912).

¹⁵ Carlton and Perloff, *Modern Industrial Organisation*, 1990 Harper Collins Publishers.

¹⁶ Areeda and Hovenkamp, *Antitrust Law*, 1993 supplement, Little, Brown and Company.

the market for prepaid calling cards. Consequently, C&W's "World Talk" prepaid calling card is the only card available on the market that can initiate calls from Jamaica. This means that the pricing of their "World Talk" calling card is not constrained by competition. Hence, C&W can reap monopoly profits from this market by charging a price above the competitive level.

10.0 Findings

- C&W's exclusive licence for the establishment and operation of the public telephone network places it in a dominant position in the telecommunications industry.
- The public telephone network is an essential facility.
- PCC and POTs are two separate products.
- PCC is a value added product.
- C&W abused its position of dominance by refusing to grant access to the PCC market.

11.0 Conclusion

In summarizing, it has been shown that a regulated monopolist has an incentive to link the provision of its regulated product (POTs) with the provision of an unregulated product (prepaid calling card), to capture the returns denied it by regulation. POTs is the critical input of PCC because the supply of PCC relies on access to the public telephone network.

Initially, C&W had no market power in the market for PCC. However, it can exploit its market power as the only legitimate entity which can maintain telecommunication apparatus for the purpose of providing telecommunication services. C&W is enforcing its position by outright denial of access to the regulated product (telephone network access via toll-free lines) by firms competing with it in the downstream market for

PCC. Hence, if a user requires access to the public telephone network by a prepaid calling card, that user must use C&W's World Talk Calling Card. Consequently, C&W can charge a price above the competitive price for PCC.

The obvious way to prevent regulatory evasion using this tactic, is to prevent the entry of the regulated firm (C&W) into downstream markets or markets for complementary goods. Without the vertical integration or entry, the regulated firm lacks the unregulated market in which it can charge prices and capture returns in excess of competitive levels. There is however, another less efficient option. The regulator (Office of Utilities Regulation) might insist that the regulated firm (C&W) establish a separate company if it wants to compete in an unregulated market. If this option is chosen, there will be the added cost of monitoring this company to ensure that the relationship between the regulated and unregulated firms does not involve vertical arrangements which are harmful to competition. Given that there is likely to be some degree of information asymmetry in favour of the regulated, this option may still be unable to detect detrimental vertical arrangements.

Although it would be ideal to have competition in all segments of the telecommunications market, this would require breaching the Government's agreements with Cable and Wireless Jamaica Limited (that is, the exclusive licences). If C&W is regulated by the Office of Utilities Regulations (OUR), and competition through interconnection is allowed, with transparent regulated access to the public telephone network (based on the essential facilities doctrine), in all non-exclusive segments of the market, such as prepaid calling cards, the staff of the Commission would be willing to accept this position.

12.0 Recommendations

- [1] The market for prepaid calling cards should be opened to competition. If this is not permitted, C&W will extend its monopoly control over this market, charging a price in excess of the competitive level.
- [2] A clear list of the basic services to be provided exclusively by the Public Telephone Operator (C&W) should be developed by the policy makers.
- [3] The OUR should be given full regulatory powers over the PTO by making the necessary changes to the regulations.
- [5] Applications for the provision of telecommunication services that require access to C&W network should be done through the OUR. This will facilitate the establishment of reasonable access charges, as well as transparency and efficiency in the supply of these services and subsequently, an increase in competition in the telecommunications market.
- [6] The OUR should also institute performance standards, particularly with respect

to the maximum length of time to deliver services.

Prepared by: Patrick Williams

Date: 15/7/98

GLOSSARY OF TERMS

AT&T - American Telephone and Telegraph Company

C&W - Cable and Wireless Jamaica Limited

ISPs - Internet Service Providers

OUR - Office of Utilities Regulation

PIN - Personal Identification Number

PCCs - Prepaid Calling Cards

POTs - Plain Old Telephone Service

PTO - Public Telephone Operator

REFERENCES

- Areeda and Hovenkamp, <u>Antitrust Law</u>, 1993 supplement, Little, Brown and Company.
- Carlton and Perloff, <u>Modern Industrial Organisation</u>, 1990 Harper Collins Publishers.
- Economic Analysis Group Discussion Paper, <u>Regulated Firms in Unregulated</u> <u>Markets</u>: Understanding the Divestiture in the <u>U.S. v. AT&T</u>, by Timothy Brennan, U.S. Department of Justice, Antitrust Division, April 1986.
- Greater Kingston Telephone Directory, 1997-1998, Cable and Wireless Jamaica Limited.
- The Radio and Telegraph Control Act, 1973.