

DRAFT

**THE JAMAICA
TELECOMMUNICATIONS
POLICY 2007**

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Technology, Energy and
Commerce**

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TABLE OF CONTENT

1.0	INTRODUCTION	4
2.0	TELECOMMUNICATIONS AND DEVELOPMENT	6
2.1	POLICY GOALS.....	6
(i)	<i>Improved Productivity of the National Economy</i>	6
(ii)	<i>Attraction of Local and International Investments</i>	6
(iii)	<i>Support for all sectors</i>	7
2.2	POLICY VISION, MISSION AND MANDATE.....	7
3.0	MAIN PRINCIPLES	7
3.1	TELECOMMUNICATIONS AS A DEVELOPMENTAL INSTRUMENT.....	7
3.2	UNIVERSAL SERVICE & ACCESS.....	7
3.3	NEUTRALITY OF TECHNOLOGY.....	8
3.4	COMPETITION WITHIN THE TELECOMMUNICATIONS SECTOR.....	9
4.0	POLICY ISSUES, OBJECTIVES AND RECOMMENDATIONS	9
5.0	INSTITUTIONAL FRAMEWORK	9
5.1	POLICY ELEMENT – SINGLE TELECOMMUNICATIONS REGULATOR.....	9
5.2	POLICY ELEMENT – GOVERNANCE STRUCTURE.....	11
5.3	POLICY ELEMENT – ICT COUNCIL.....	12
6.0	MANAGEMENT OF SPECTRUM	13
6.1	POLICY ELEMENT – SPECTRUM MANAGEMENT.....	13
7.0	REGULATORY FRAMEWORK	14
7.1	POLICY ELEMENT - LICENSING.....	15
7.2	POLICY ELEMENT – UNDERSERVED LICENSING AND UNIVERSAL ACCESS.....	16
7.3	POLICY ELEMENT – CO-LOCATION OF TELECOMMUNICATIONS EQUIPMENT.....	16
7.4	POLICY ELEMENT - ECONOMIC REGULATION.....	17
7.5	POLICY ELEMENT – QUALITY OF SERVICE (QOS) - REGULATORY PERFORMANCE.....	18
8.0	LEGAL FRAMEWORK	19
8.1	POLICY ELEMENT - THE NEW TELECOMMUNICATIONS ACT.....	19
8.2	POLICY ELEMENT – ENFORCEMENT AND SANCTIONS.....	20
9.0	COMPETITION	21
9.1	POLICY ELEMENT – ABUSE OF DOMINANCE.....	21
9.2	POLICY ELEMENT – NUMBER ADMINISTRATION.....	22
9.3	POLICY ELEMENT – LOCAL LOOP UNBUNDLING.....	23
10.0	UNIVERSAL SERVICE & ACCESS	23
10.1	POLICY ELEMENT – UNIVERSAL SERVICE TO FACILITATE DEVELOPMENT.....	23
10.2	POLICY ELEMENT – UNIVERSAL SERVICE OBLIGATIONS.....	24
10.3	POLICY ELEMENT – FUNDING OF UNIVERSAL SERVICE OBLIGATIONS.....	25
11.0	CONSUMER PROTECTION AND STANDARDS	26
11.1	POLICY ELEMENT - QUALITY OF SERVICE.....	26
11.2	POLICY ELEMENT - PRIVACY OF CUSTOMER INFORMATION.....	27
11.3	POLICY ELEMENT - IMPROPER USE OF SERVICE OR FACILITY.....	27
11.4	POLICY ELEMENT - NON-DISCRIMINATION AND CONTINUITY OF SUPPLY.....	28
12.0	TELECOMMUNICATIONS INFRASTRUCTURE	28
12.1	POLICY ELEMENT – STRATEGIC BROADBAND.....	28

13.0	TECHNOLOGY	30
13.1	POLICY ELEMENT - TECHNOLOGY NEUTRALITY	30
13.2	POLICY ELEMENT – EMERGING TECHNOLOGIES	30
14.0	THE ENVIRONMENT	31
14.1	POLICY ELEMENT – TREATMENT OF ICT WASTE.....	31
14.2	POLICY ELEMENT – LEVELS OF EMISSION	31
14.3	POLICY ELEMENT – POLICY REVIEW	32

REFERENCES

The following documents were used as reference material in the preparation of the document:

- (i) Draft Telecommunications Policy – Ministry of Industry, Commerce and Technology, September 2002
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- (v) Review of the Legal, Regulatory and Institutional Framework for the Telecommunications Sector and Recommendations for Reform - Dr. Peter Stern, July 2004
- (vi) Telecommunications Policy Reform in Jamaica, Recommendations from the Jamaica Telecommunications Advisory Council – July 2002
- (vii) International Telecommunication Union, GSR 2007 Discussion Paper, NGN and Universal Access – Edited by Eric Lie, February 5-7, 2007
- (viii) PPIAF – Jamaica Regulatory Impact Assessment Study – Cambridge Economic Policy Associates, October 2006
- (ix) Canadian Telecommunications Policy Review Discussion Paper – Canadian Radio-television and Telecommunications Commission, August 2005
- (x) South Africa ICT Policy
- (xi) Written comments received during the Consultation meeting with Stakeholders during the period November 2006 to March 2007

1.0 INTRODUCTION

The Government has recognized the importance of the telecommunications sector and the potential it offers for technological and commercial development and increased job creation. Within this context, in 1999 the Government made a decision to liberalize the Telecommunications Industry. This was also in response to external factors, which culminated in Jamaica becoming a signatory to the World Trade Organization's Basic Agreement on trade in telecommunication services.

The Government adopted a phased approach to the liberalization of the telecommunications sector in order to minimize dislocation and to ensure that the necessary legal and regulatory framework was in place. To that end, a new Telecommunications Policy and Act were promulgated in 1999. The Government adopted a consultative and non-adversarial approach in the liberalization process. This involved negotiating a termination of the monopoly license held by Cable & Wireless Jamaica Limited (Cable and Wireless), which would have lasted until 2013 renewable to 2038. The non-adversarial approach adopted proved to be very effective, relative to the position taken by other jurisdictions at the time.

The Telecommunications Act 2000 (the Act), became effective on March 1, 2000 and made specific provisions for the liberalization of the telecommunications sector. The liberalization was implemented in three phases. The period for each phase and the key elements of each phase are presented below:

- (i) Phase I (March 1, 2000 – August 31, 2001)**
 - Opened the market to wireless telecommunication.
 - Opened the market for the provision of customers' own equipment.
 - Allowed companies with single entity free zone status to provide their own telecommunications services.
 - Opened the market to the resale of data, international voice and Internet access.

- (ii) Phase II (September 1, 2001 – February 28, 2003)**
 - Competition in domestic facilities and services.
 - Cable TV providers being allowed to become Internet service providers (ISPs).

- (iii) Phase III commenced March 1, 2003**
 - All telecommunications facilities, including international voice and data services, were opened to competition.

The Act also provides for the establishment of an advisory body known as the Jamaica Telecommunications Advisory Council (JTAC). Cable & Wireless enjoyed a right of representation on JTAC. Other appointments to the body were made on the recommendations of the other carriers, service providers, corporate business entities and consumers. The mandate of JTAC was to provide advice to the Minister on the reform of the telecommunications sector.

The Act provides for the sector to be regulated by the Office of Utilities Regulation (OUR) and the right for companies to appeal to a Telecommunications Appeals Tribunal, against the decisions of the OUR.

The Act also provides for the management of the radio frequency spectrum by the Spectrum Management Authority.

It was envisaged that a new Act would have been promulgated either during the transitional phase or shortly thereafter.

In preparation for the revision of the 2000 Act, the portfolio Ministry in early 2001 commissioned a comprehensive study of the industry. That study¹, completed in 2002, was performed with general oversight by JTAC. Subsequently, two other studies² were conducted by the Ministry. A Regulatory Impact Assessment Study³, which included telecommunications, was commissioned by the Cabinet Office. The reports also concurred with the need to have a single agency responsible for telecommunications regulation and also the need for a new Telecommunications Act.

The studies recognized a number of pertinent issues, including:

- (i) the convergence of all telecommunications services on diverse media
- (ii) new technologies and the resulting competition issues arising out of the liberalized market
- (iii) management and potential governance of content
- (iv) the existence of multiple regulatory agencies (OUR, Spectrum Management Authority, Broadcasting Commission) as a constraint to cost-effective and efficient regulation of the sector; and
- (v) the need to review the role of JTAC.

This Policy addresses the issues identified from the studies and establishes a framework for ICT to enable national development. It is envisioned that this Telecommunications Policy will be supported by a National Information and Communications Technology Strategic Plan. It will also coexist with and complement a Broadcasting and Content Policy. This holistic approach will ensure that all the critical elements are taken into consideration to further develop the telecommunications sector to promote economic and social development.

¹ – InfoCom Management Consulting Services conducted a study.

² - One was conducted in 2004 by Dr. Peter Stern and the other in 2006 by the Nordicity Group. Both studies concurred with the earlier recommendation for a single regulator and the need to revise or develop a new Telecommunications Act.

³ - The study was conducted by the Cambridge Economic Policy Associates (CEPA), in partnership with a team from the University of West Indies (UWI), and a final report was produced in June 2006.

2.0 TELECOMMUNICATIONS AND DEVELOPMENT

2.1 Policy Goals

During the period of phased liberalization, the following were among the significant achievements:

- (i) increased local and international investment
- (ii) increased voice penetration
- (iii) increased availability of broadband services
- (iv) the availability of electronic commerce, electronic banking and electronic government services
- (v) broader economic and social benefits derived from the integration of Information and Communications Technology (ICT) and telecommunications.

Recent developments in Information and Communications Technology (ICT), in general, have resulted in the provision of a range of telecommunications services. These services include the transmission of voice, video, data and multi-media communications based on wireline and wireless networks. The Government considers telecommunications as a significant part of its economic strategy and wishes to leverage telecommunications in its various forms to enhance the development process.

The three main goals of this Policy are:

(i) Improved Productivity of the National Economy

Telecommunications has the potential for increasing the overall efficiency of both the public and private sectors. In the case of the public sector, the objective is to improve public access to a wide range of government services and to improve the responsiveness of government agencies to the public. With respect to the private sector, the overriding objective is to obtain the many benefits that flow from competition among entities in the global economy. The Government will facilitate the establishment of access points, incubators and ICT parks. Cost-effective telecommunication services will enable both public and private enterprises to continuously automate and improve business processes to improve national productivity.

(ii) Attraction of Local and International Investments

The Government is keen on promoting the establishment of a world-class telecommunications infrastructure and services, so as to attract increased investments in the country, with particular focus on ICT related businesses and services. These include contact centres to support global business processes, customer service operations, manufacturing and production enterprises.

ICT will also be utilized to promote and attract investments in the entertainment and culture sectors and also to build local content.

(iii) Support for all sectors

The Government is committed to using ICT as a key enabler to develop all sectors including health, education, tourism, security and agriculture. Focus will be given to the creation of an educated and knowledge-based society capable of leveraging the cumulative benefits of telecommunications and ICT to achieve global competitiveness.

2.2 Policy Vision, Mission and Mandate

The vision of the Government is to establish a knowledge-based and educated society thereby increasing Jamaica's global competitiveness and productivity.

The mission is to achieve greater social and economic development through increased application of ICT and telecommunications in all sectors, through the promotion and greater provision of e-learning, e-tourism, e-health, e-security and e-agriculture services.

The mandate is to establish and maintain a modern island-wide telecommunications infrastructure and to allow all citizens access to the range of telecommunications services to be provided by such infrastructure.

3.0 MAIN PRINCIPLES

This Telecommunications Policy is anchored on four fundamental principles which are as follows:

- (i) Telecommunications as a developmental instrument
- (ii) Universal Service & Access
- (iii) Neutrality of Technology
- (iv) Competition

3.1 Telecommunications as a Developmental Instrument

Telecommunications is a key enabler for all sectors including ICT, industry, commerce, education, health, security, entertainment and services. This policy is intended to utilize telecommunications as an instrument for national development and to improve the global competitiveness of local industries.

3.2 Universal Service & Access

At the end of 2005, the mobile penetration rate was approximately 81% and total telephone (mobile and fixed) penetration rate was 94%. For the same year, Internet and computer penetrations were reportedly 39.87% and 6.2%, respectively. Despite the high telephone penetration rate, many internet services still depend on fixed-line networks for connections to

end users. This is rapidly changing because of wireless technologies such as Wi-Fi and Broadband Wireless Access (BWA). BWA in particular has been singled out for ease of installation and comparatively affordable access in unserved and underserved areas.

The government is therefore revising the policy related to universal service and access to extend beyond voice and to include internet, computer, information literacy and access to telecommunications services.

This policy defines Universal service as the availability of telecommunications and information services at affordable prices throughout Jamaica.

Universal service consists of three main elements as follows:

Availability:	There should be ubiquitous coverage of telecommunications and internet services
Accessibility:	The opportunity for everyone to use the services without discrimination or preferential treatment among any class of users.
Affordability:	Rates should be fixed so that prices are not prohibitive to ordinary users of the services

The main elements of universal access include:

- (a) Physical build-out of the network to cover unserved/ underserved areas in both rural (remote) and urban (inner city) areas
- (b) Ability to utilize the network (knowledge/expertise to use the network effectively)
- (c) Access to the emergency services e.g. Fire Brigade, Police, Air and Sea Rescue
- (d) Access to the network by persons with disabilities and special social needs
- (e) Access to fixed line and wireless networks.

The Government will partner with the private sector to deploy an island-wide broadband network and to achieve universal access. This partnership will include the provision of existing and emerging technologies (example: computers, PDAs) to access the network and services. One key requirement is to educate citizens to use the technologies and access the services.

3.3 Neutrality of Technology

This policy will promote neutrality of technology and foster innovation. It will encourage competition so that consumers can benefit from technological innovation and high quality services at the most reasonable and affordable prices. Neutrality of technology also seeks to ensure regulatory even-handedness for relatively homogenous products which are provided within a single market but which use alternative technologies for service delivery. This is to ensure that no particular technological solution is artificially stimulated or penalized through inconsistent regulations.

3.4 Competition within the Telecommunications Sector

The need for de-monopolization was a major feature of the earlier policy. Some degree of competition now exists in the mobile telephone telecommunications sector. A focus of this new policy is to (i) promote and deepen competition in relation to the various services offered in the sector; and (ii) enable participation by additional suppliers and providers, thereby, providing a wider range of services. This will result in several benefits, including a reduction in the costs paid by consumers to switch to different service providers. It is expected, therefore, that competition-enhanced services will emerge based on market demand.

The natural tendencies of dominant operators must be appropriately regulated to prevent anti-competitive behaviour.

4.0 POLICY ISSUES, OBJECTIVES AND RECOMMENDATIONS

The above considerations now inform the issues, objectives and recommendations outlined and discussed below.

5.0 INSTITUTIONAL FRAMEWORK

In order to promote full competition as well as to facilitate the convergence of telecommunications, information and communications technology and media services associated with the evolution of technologies, a new institutional framework will be implemented for the sector.

5.1 Policy Element – Single Telecommunications Regulator

(a) Policy Issue

- (i) Each aspect of the telecommunications and communications sectors is currently regulated by a different regulator. Consequently, the sector consists of a number of regulators. These are the Office of Utilities Regulation (OUR), the Spectrum Management Authority (SMA), the Consumers Affairs Commission (CAC), the Broadcasting Commission of Jamaica (BCJ) and the Fair Trading Commission (FTC). The Ministry of Industry, Technology, Energy and Commerce (MITEC) has portfolio responsibility for policy formulation for the ICT sector. The Minister of Information and Development has responsibility for policy development in the electronic media sector, supported by the Broadcasting Commission and the Information Division in the Office of the Prime Minister. The current telecommunications regulator (OUR) reports to the Minister responsible for Information and Development in the Cabinet Office for matters concerning administration, and the Minister of Industry, Technology, Energy and Commerce for policy matters. MITEC also has oversight for the SMA, FTC and the CAC. With respect to telecommunications, MITEC develops and gives policy direction of a general nature.

- (ii) There is overlapping of jurisdictions in the sector which impedes its efficient regulation and increases the regulatory cost. This is evidenced by the shared responsibilities of the OUR, SMA, FTC and CAC. This overlapping of jurisdictions produces a degree of uncertainty in the minds of stakeholders and unnecessary delays in the issuance of approval, rendering of decisions, etcetera by the regulators. A useful example, is that applicants are at times required to visit several offices in order to access a right or remedy relating to telecommunication services, and the regulators, in turn, are required to co-ordinate their efforts.

(b) Policy Objective

The removal of the fragmentation and overlapping jurisdictions in the telecommunications sector, caused by the existence of the multiple regulators, and to implement a simplified and efficient institutional framework for the regulation of the trading of goods and services within the sectors.

(c) Policy Recommendation

- (i) The creation of a single telecommunications regulator; this would involve the fusion of the telecommunications regulatory functions of the OUR, the radio spectrum technical functions of the BCJ and the spectrum management functions of the SMA. Content matters would remain within its portfolio Ministry.
- (ii) It is recommended that the FTC, which has responsibility for a wider constituent, remains separate from this converged entity and maintains responsibility for the adjudication or resolution of competition and consumer competition matters that properly falls within its jurisdiction under the Fair Competition Act. The single telecommunications regulator will defer to the FTC on matters relating to the abuse of dominant position, collusive activities and other competition matters.
- (iii) The Consumers Affairs Commission (CAC) will continue to have responsibility for matters related to consumer protection that falls within its jurisdiction under the Consumer Protection Act. All matters related to consumer protection should be referred to the CAC.
- (iv) It is also recommended that the role and responsibilities of the BCJ, which is to be designated as the Content regulator, be expanded to include the regulation of content distributed over all existing and emerging technology platforms.
- (v) It is recommended that a cross-regulatory relationship be institutionalised between the Content regulator and the Telecommunications regulator in the form of an *Inter-regulator's Forum*. This body would be the place for all issues to be addressed between the regulators, including matters such as allocation of fee income.

- (vi) It is recommended that a counterpart Broadcasting and Content Policy be developed that will coexist and complement the Telecommunications policy.
- (vii) The Telecommunications regulator will be financed from regulatory fees which will be determined by an approved formula. The budget will be reviewed by the portfolio Ministry and approved by the Cabinet. The financial operation of the regulator will be subject to independent audit, on an annual basis.
- (viii) Annual reports will be submitted to Parliament.
- (ix) Revenues generated from the annual spectrum license fees and ‘one off’ or non-recurring licensing events (such as spectrum auctions, etc.) will be paid into the Consolidated Fund unless the Government prescribes otherwise.
- (x) There will be an unbundling of accounts of the licensees to ensure that both the Content Regulator and the Telecommunications Regulator are able to determine a formula for the allocation of the fees paid by the regulated entities.
- (xi) The OUR and the BCJ (Content Regulator) will be funded as prescribed by the Government and their relevant Acts.

5.2 Policy Element – Governance Structure

(a) Policy Issue

The governance structure needs to separate investigative and adjudicative functions, in order to mitigate potential challenges on the grounds that regulatory decisions do not satisfy the rules of natural justice. Additionally, the single telecommunications regulator needs a governance structure which will ensure independence and the resolution of issues that affect the sector in a reasonable timeframe, given the dynamic and competitive nature of the sector.

(b) Policy Objective

The objectives are as follows:

- (i) the separation of the policy and regulatory functions, while providing immediate access to the telecommunications regulator in circumstances where issues require the prompt or immediate attention of this regulator;
- (ii) transparency in the regulatory process;
- (iii) the independence of the single regulator;
- (iv) Natural justice. Given the proposed increase in responsibility that will be given to the Single Telecommunications Sector Regulator, there is a need to ensure that the governance structure satisfies the rule of natural justice;
- (v) a mechanism for continuous consultation with all stakeholders

(c) Policy Recommendation

The following governance structure is recommended:

- (i) The Courts - Stakeholders may appeal to the courts, on a point of law, for any decision taken by the Telecommunications Appeals Tribunal.
- (ii) The Telecommunications Appeals Tribunal or any other designated Appeals Tribunal will be responsible for the hearing of appeals of decisions made by the Regulatory Board.
- (iii) A Regulatory Board of Commissioners will be responsible for adjudication of matters referred to the Board and for regulatory decision making. The Board will consist of a minimum of three and a maximum of five Commissioners. It is recommended that the Commissioners be appointed based on their professional qualifications and for renewable fixed terms through a recommendation to Cabinet.
- (iv) The Executive Head of the Single Telecommunications Regulator will, upon the recommendation of the Services Commission, be appointed by the Governor General for renewable fixed terms.
- (v) The single Telecommunications regulator will be responsible for administration and making recommendations for decisions to the Board and, in the case of disputes or complaints will be responsible for investigations of complaints and presenting the findings to the Board for a determination.
- (vi) There will be a formal process for the development of rules / procedures and continuous public/stakeholder consultations

5.3 Policy Element – ICT Council

(a) Policy Issue

The Jamaica Telecommunications Advisory Council (JTAC) was established by the Telecommunications 2000 Act, to function as a transitional body for the phased liberalization of the sector. JTAC also managed consultations with stakeholders on behalf of the portfolio Ministry. As per the provisions of the Act, the five year's mandate of JTAC has expired and there is now competition in the telecommunications market. Moreover, the government has established a formal protocol for broad consultation on policy issues.

(b) Policy Objective

To establish a Council that focuses on more strategic ICT related issues and activities so that the sector and the country can become more competitive.

(c) Policy Recommendation

It is recommended that a National ICT Council be established within the portfolio Ministry, to replace JTAC. The Council is to consist of personnel having (expert) knowledge of the industry and would serve as an advisory group to the Minister. The Council's activities will include the

formulation, articulation and review of the national ICT policy and the national ICT strategy thereby addressing all aspects of ICT.

The source of administrative and financial support for the operation of the National ICT Council will be clearly defined in the new Telecommunications Act.

6.0 MANAGEMENT OF SPECTRUM

6.1 Policy Element – Spectrum Management

(a) Policy Issue

The Radio Frequency Spectrum is critical for any application that requires wireless technologies, including broadcasting, subscriber television, aeronautical and maritime guidance systems and emergency services. This makes it a public resource, an economic asset, that is in ever-increasing demand and which must be effectively managed by the Regulator to ensure that maximum benefits accrue to the Jamaican people. Importantly, licensed users of the radio frequency spectrum must be provided with a high quality of service and the emergency support system needs to be reliable.

The rapid increase in the provision of mobile services and the introduction of new wireless technologies (such as WiFi and BWA) has increased the demand for spectrum dramatically over the last few years. Therefore, new ways have to be implemented to improve the efficient allocation of the spectrum.

The present framework also, does not allow for payment of regulatory fees by all users. This anomaly needs to be addressed.

(b) Policy Objective

To develop spectrum management and allocation policies, which take into consideration all existing and emerging wireless technologies (including 3Gs, 4Gs, WiMax, WiFi and CDMA) to:

- (i) promote more efficient allocation of the spectrum;
- (ii) provide a world class service to licensed spectrum users;
- (iii) increase the speed of proliferation, and access to the benefits of, new technologies and associated services;
- (iv) derive maximum economic benefit; and
- (v) attract additional investments

(c) Policy Recommendation

The following are recommended:-

- (i) The efficient allocation and utilization of the spectrum to facilitate the proliferation of new technologies in order to stimulate innovation, investment and competition among services and technologies, in accordance with international standards and recommendations.

- (ii) Provisions in the new Telecommunications Act to develop and enforce operational rules/ procedures in keeping with best international practices and trends, in order to ensure a modern radio frequency spectrum management framework.
- (iii) Provisions in the new Telecommunications Act for enforcement related to the illegal use of spectrum.
- (iv) The allocation of spectrum in accordance with the requirements of both the public and private sector, while ensuring a balance between the two sectors to the ultimate benefit of Jamaica.
- (v) Upon consultation and to the extent necessary, the refarming of, and access to, the spectrum to meet changing user needs and to facilitate the deployment of new and emerging technologies provided that such refarming or access to Spectrum shall be based on appropriately defined criteria and conditions and shall be in accordance with all applicable laws.
- (vi) Provisions will be made in the new Telecommunications Act for refarming of the spectrum as it relates to operators and deployment of emerging technologies.
- (vii) Operators who are required to relocate to another radio frequency spectrum may be provided with some inducements.
- (viii) All spectrum users will be required to be licensed under the new Telecommunications Act and will be required to contribute to the cost of regulation.
- (ix) Radio spectrum allocation will allow for reserved frequency allocations for law enforcement, public safety, emergency and other services of national interest. The power to assign and re-assign radio frequency spectrum will be the responsibility of the Regulator, except in the provision of specified spectrum allocations such as mobile. Further, subject to an ex parte order from the Supreme Courts, the Government shall have the power to suspend the right of use of any spectrum allocated, in the interest of National Security or defence.

7.0 REGULATORY FRAMEWORK

In order to facilitate and safeguard procedural efficiencies in the telecommunications sector, now characterized by the convergence of networks, technologies and services, an appropriate regulatory framework is required. This framework will be based on rules that are transparent, responsive to technological change and treat with issues including technical convergence, interconnection, universal access/service, effective competition and increased consumer protection and welfare. The framework will also provide for the sector to be regulated in a non-discriminatory and transparent manner, including accountability for all its operations and service delivery to consumers and carriers.

7.1 Policy Element - Licensing

(a) Policy Issue

- (i) In a competitive telecommunications market, an appropriate licensing regime is needed to ensure order among competing operators. In awarding licences, consideration should be given to the number of licences, the economic value of the licences, the consumption of finite resources such as radio spectrum and numbering, and the business model, technical and financial capabilities of applicants.

(b) Policy Objective

To administer a licensing arrangement for the telecommunication and communications sectors, which ensures that appropriate standards are maintained, and competition and consumer welfare advanced. Additionally, the licensing regime will ensure the allocation of scarce resources and establish a framework for competition.

(c) Policy Recommendation

- (i) The single regulator will be responsible for issuing telecommunications licenses.
- (ii) Simplification of the licensing process by the implementation of a single license with multiple categories. A licensee can apply for a license in one or more categories.
- (iii) The Government will institute a licensing regime which will effectively regulate the various services offered to the public. The licensing regime will continue to promote the principle of technology neutrality.
- (iv) The portfolio Ministry will work with other Ministries and portfolio Agencies to ensure that benefits that are accrued from contractual arrangement between the licensees and government Ministries and/or Agencies are consistent with national priorities and plans.
- (v) All licensees will be required to contribute to the cost of regulation.

7.2 Policy Element – Underserved Licensing and Universal Access

(a) Policy Issue

While telephone penetration is high in Jamaica, broadband penetration to provide internet access remains low. In this regard, there is a need for the regulatory framework to provide a licensing mechanism that will expand broadband access in underserved and marginalized areas.

(b) Policy Objective

To increase broadband penetration by supporting the specific needs of these under-served communities including internet access, e-learning, e-health, e-government, e-commerce, e-security and other electronic services.

(c) Policy Recommendation

It is recommended that the under-served priority regions of the country be identified and the special licenses be issued to existing and new providers to offer broadband services in these areas. The licensing regime will provide incentives to investors who facilitate access and services in these underserved areas.

7.3 Policy Element – Co-location of Telecommunications Equipment

(a) Policy Issue

With the introduction of competition in the local telecommunications and communications sectors, there has been a proliferation of cell towers across the island. Operators are currently not sharing premises and other essential facilities to take advantage of unbundling. In addition, there are issues with multiple operators who engage in excavating the public roadways to lay equipment and cable. Specifically, there is lack of coordination between operators resulting in increased costs, traffic congestion and undue disturbance to the public. Therefore, there is an urgent need to implement a new co-location policy to resolve these issues.

(b) Policy Objective

The objective is to have cell towers optimally located island-wide, in accordance with the guidelines established by the relevant government Authority, and to promote co-location as it relates to cellular towers, cable landing stations, central offices, operator premises and right-of-way /easements for the laying of cables.

(c) **Policy Recommendations**

The recommendations are:

- (i) provisions will be made in the new Telecommunications Act for co-location as it relates to cellular towers, cable landing stations, right-of-way to lay cables and attachment of cables to poles;
- (ii) equipment sited prior to this policy will in accordance with all applicable laws, be co-located with the consent of the operators. Consideration will be given to grandfathering certain facilities;
- (iii) operators who are required to co-locate may be provided with some inducements;
- (iv) the regulator in collaboration with other government agencies, such as NEPA, local Parish Councils and the NWA, will identify prime cell tower locations, cable landing sites, pole locations and right away for laying cables. This information will be used as a criterion for certifying cell towers;
- (v) the regulator will certify these optimal locations and ensure that the electronic equipment and cables be installed in accordance with technical standards;
- (vi) companies that are authorized to erect new towers based on the optimal location criterion will be required to facilitate the co-location of equipment of other providers. The regulator will prescribe the co-location rates to be charged by owners of cell towers;
- (vii) Provisions will be made in the new Telecommunications Act for operators to request physical co-location or virtual co-location, or both, in another operator's central offices except in those that have space limitations, or where it is not technically feasible to provide a physical collocation arrangement. Central office means an operator's primary switching location;
- (viii) Provision will be made for appropriate mechanisms to be instituted to govern co-location arrangements relative to subscriber television operations especially as it relates to underground carriage and incentives will be provided to encourage co-location; and
- (ix) Provisions will be made for the regulator to resolve co-location disputes including issues related to rates, conditions of access and access to infrastructure.

7.4 Policy Element - Economic Regulation

(a) Policy Issue

The phenomenon of telecommunications convergence and the incidences on the mergers, acquisitions and consolidations of carriers globally illustrate a tendency towards dominance of

the telecommunications sector, in the more developed markets, by a few carriers. The Jamaican Telecommunications industry is no less susceptible to these factors.

Consequently, whilst there is a need to recognize and allow market forces to govern the telecommunications environment, the regulator must guard against anti-competitive practices of any dominant service provider in the island. There is also an absence of provisions for the economic regulations of the telecommunications sector which needs to be addressed given the increased number of companies/entities in this sector.

(b) Policy Objective

To allow market forces to govern the telecommunication sector subject to economic regulatory provisions aimed at promoting competition in the sector, however provisions are to be applied by the regulator, as necessary, to prevent market failure or anti-competitive practices by any dominant provider or supplier of services.

(c) Policy Recommendation

It is recommended that:-

- (i) There should be effective regulatory provisions that will enable timely action to be taken against anti-competitive practice(s) by any dominant carrier/service provider. The regulatory provisions in the Telecommunications Act should enable the Minister, upon the recommendation of the Regulator, to enact economic regulations to prevent or abort any anti-competitive practice.
- (ii) The Telecommunications Act should provide adequate provisions for the enforcement of economic and other pro-competition regulations by the regulator.
- (iii) A mechanism to forecast, to collect information, and analyze the impact of economic regulations on telecommunications businesses, especially the broadcasting sector be implemented in the short-term. The information gathered should be used to formulate and apply economic regulatory measures both ex ante and post licensing.

7.5 Policy Element – Quality of Service (QOS) - Regulatory Performance

(a) Policy issue

There will be a need to demonstrate the regulator's effective performance in relation to the QOS, Performance Standards and other policy elements to be observed by the carriers and service providers.

(b) Policy Objective

To promote a high standard of performance by the regulator in relation to achieving compliance with the Government's telecommunications policy and attending legislative provisions.

(c) Policy Recommendation

It is recommended that the regulatory framework includes an assessment process for the regulator to plan, execute, promote and communicate its scope, responsibilities and delivered results. This process will include the following:

- (i) The establishment and inclusion of Performance and Quality of Service standards for the regulator in its annual budget and work plan.
- (ii) Mechanism for the operators who pay regulatory fees to comment on the regulator's draft annual budget and the Regulator may have regard to take into account these comments before finalizing and submitting its budget for approval.
- (iii) The development and maintenance of a comprehensive up-to-date set of publication methods, including a web site containing information on all of the Regulator's current and past regulatory proceedings, including decisions, regulations, consultations, Quality of Service Standards, Discussion Papers and other data and statistics for the sector. The Regulator will also maintain a toll free line.
- (iv) Where the Regulator conducts proceedings to adopt new rules or amend existing ones, the public will be allowed the opportunity to participate formally by petitioning the Regulator according to established rules and procedures or informally by submitting copies of comments. This will ensure that the new or amended rules serve the public interest.
- (v) The Regulator should have an office of public affairs which issues public notices, news releases provides copies of decisions, rules and comments at standard reproduction cost to the public. This department should be responsible for all outreach activities of the Regulator including luncheon series on issues, recent policy changes and conducting seminars and workshops designed to keep the public informed.

8.0 LEGAL FRAMEWORK

8.1 Policy Element - The New Telecommunications Act

(a) Policy Issue

The Telecommunications Act 2000 and supporting legislative framework were enacted to achieve certain stated objectives. Whereas some of these objectives have been achieved, the legal framework is in need of revision in order to address current developments in the sector and enhance the regulation of the sector.

(b) Policy Objective

To give effect to, support and secure the provisions of this telecommunications policy, with an appropriate and robust legal framework. This framework will reference relevant legislative provisions, regulations and orders outlining the rights, duties and responsibilities of all appropriate portfolio Ministries, Regulatory agencies, licensees, service providers, customers and any other stakeholders.

(c) Policy Recommendation

The creation of a new Telecommunications Act and supporting regulations to mandate and give effect to the several objectives in this policy, including:

- (i) the need for innovative and flexible regulatory governance in an environment where a number of telecommunications services are being transmitted/offered over a single telecommunication medium;
- (ii) the promotion of the development of the telecommunication sector;
- (iii) the promotion of competition among carriers and service providers;
- (iv) the promotion of the concept of universal service and access;
- (v) the protection of the rights of, and enforcement of the responsibilities of, carriers, service providers and consumers;
- (vi) provisions for measures to be taken by the State for the protection of the public's interest, in times of emergency, and national defence; and
- (vii) provisions for the optimum allocation and utilization of all telecommunications' resources and the protection of the environment.
- (viii) Provisions will be made for timely review and amendments where necessary to the policy framework and the Act to deal with critical changes in the sector.
- (ix) Existing laws will be reviewed to ensure consistency between the new Telecommunications Act and regulations and other laws.

8.2 Policy Element – Enforcement and Sanctions

(a) Policy Issue

The current legislative framework has, however, proven inadequate and, in some cases, unsuitable to enforce existing sanctions for breaches and in some cases the available sanctions are inappropriate for the proven breach or offence. Hence, in many instances, suspension of the right to provide service (disconnection) or termination of a licence is the only remedy for a breach. In circumstances where such a remedy is not commensurate with the breach, the power

of the regulator to impose and enforce a monetary penalty would be a more appropriate and equitable remedy.

(b) Policy Objective

To remedy existing deficiencies and mischief in the legal framework by prescribing appropriate and equitable sanctions and penalties for different breaches and clear and certain procedures for the enforcement of such sanctions and penalties.

(c) Policy Recommendation

The new Telecommunications Act and Regulations should make clear provisions for curtailing breaches by the enforcement of appropriate sanctions. Such provisions are to include:

- (i) the introduction of powers to impose and enforce monetary penalties and other remedies, where appropriate;
- (ii) prosecution in the Court for specific breaches under the Act; and
- (iii) limiting the termination of licence or suspension of the right to provide service to material breaches in cases where it is just and equitable to do so.

9.0 COMPETITION

It is generally accepted that competition among providers of goods and services in any sector promotes and encourages the growth and development of that sector and the efficiency of the providers of such goods and services. Competition often results in providers adopting new and responsive technologies or services, at affordable prices, to attract and satisfy consumers. In order to foster competition, barriers to new entrants in the market or for a particular service should be kept at a minimum and be limited to satisfaction of the licensing criteria and the ability to deliver the services at the requisite standards.

9.1 Policy Element – Abuse of Dominance

(a) Policy Issue

There continues to be an issue regarding access agreements and arrangements between the dominant provider and other providers.

(b) Policy Objective

The objective is to reinforce the legal and regulatory framework that stipulates the terms and conditions for interconnection and provide the necessary means for the enforcement of such terms and conditions.

(c) Policy Recommendation

Legislation will be enacted to better define and set out the access procedures and the means of enforcement of such procedures. This will include provisions for co-location and local loop unbundling, in a manner consistent with applicable laws.

9.2 Policy Element – Number Administration

(a) Policy Issue

Telephone numbers constitute a finite resource which must be administered in the public interest. With the introduction of deregulation, the regulator is now responsible for number administration. Additionally, there is now a competitive market and new and different means of delivering services. To respond to these developments, there is a need for:

- (i) effective management of the numbering system to ensure equity and fair allocation of numbers to all carriers, services providers and new services, as appropriate;
- (ii) number portability subject to economical viability and the demand for the service;
- (iii) inclusion of new numbering options, such as *TE*lephone *NU*mer *M*apping (ENUM); and
- (iv) the rationalization of the functions of the two existing numbering entities (traditional telephone numbering and domain name system) in preparation for the implementation of new and emerging numbering options.

(b) Policy Objective

To effectively manage telephone numbers to facilitate the optimal allocation of telephone numbers to all existing and new service providers; and to provide for the application of new numbering systems as deemed suitable.

(c) Policy Recommendations

The regulator will have responsibility for number administration and the allocation of numbers to service providers. The key recommendations include:

- (i) a sufficiently flexible numbering system to meet future demands for telephone numbers;
- (ii) the allocation of numbers on an equitable and commercially reasonable basis;
- (iii) numbers allocated and not used within a specified time to be re-possessed, if necessary;
- (iv) cost effective management of the numbering plan;

- (v) the implementation of Service Provider Number Portability subject to a determination by the regulator, upon reasonable grounds, that there is sufficient demand for number portability in the market place;
- (vi) the implementation of procedures to ensure compliance with the ENUM protocol and future numbering protocols by the administrator of domain name system and the regulator. This compliance will ensure the resolution and rationalization of the management of the numbering regime (legacy and ENUM) and guarantee that telephone numbers allocated by the number management agency will map properly as domain names to Internet content resources.

9.3 *Policy Element – Local Loop Unbundling*

(a) Policy Issue

Currently, there is no unbundling of the local loop which has distorted market competition as this relates to access network services.

(b) Policy Objective

To encourage competition and promote the growth of the industry by removing the need for new entrants to replicate the local loop plant, thereby, eliminating the costs associated with such replication; and facilitating the deployment of broadband services throughout the island.

(c) Policy Recommendation

Provisions will be made in the new Telecommunications Act for the regulator to prescribe the terms and conditions for the unbundling of the local loop.

10.0 UNIVERSAL SERVICE & ACCESS

10.1 *Policy Element – Universal Service to facilitate Development*

(a) Policy Issue

Universal Service is required to ensure that all citizens have access to basic communications services at an affordable rate. Voice telephony is extensively available throughout Jamaica but there is a need to expand island-wide access to broadband networks and services.

(b) Policy Objective

- (i) To ensure that communication services are available throughout the island and to provide all Jamaicans with access to such services at affordable prices.
- (ii) To ensure the wide scale availability and access to high quality and diverse communications services on a domestic and international broadband infrastructure to facilitate and to support the Government's developmental programmes.
- (iii) To ensure that there is information literacy and the provision of local content.

(c) Policy Recommendations

- (i) The establishment of a national broadband network to connect key public institutions including government agencies, schools, libraries, post offices, emergency and public safety entities.
- (ii) Government should leverage telecommunications in order to achieve lifelong learning and a knowledge-based society by ubiquitous access to information which supports improved education, skill acquisition and innovations.
- (iii) The provision of incentives to operators that offer services in underserved communities.
- (iv) The promotion of information literacy programmes and the development of local content.

10.2 Policy Element – Universal Service Obligations

(a) Policy Issue

Prior to the de-monopolization of the local telecommunications sector, the sole telecommunication provider had responsibility for meeting the universal service obligations (USO). Since de-monopolization, there is shared responsibility for financing the USO, with no single carrier or service provider bearing this responsibility.

Without an adequate universal service obligation, there is a risk that carriers and service providers would favour geographical areas that are densely populated and where the cost of delivering service per customer would be relatively low. The policy seeks to guard against this risk, which would exclude numerous rural communities and lower socio-economic areas from access to telecommunication services.

While voice telephony, through wire line and wireless transport, penetrates extensive areas of the island, the availability and access to broadband networks for Internet access remains a major challenge. This has adversely impacted on ICT based education, access to information and the deployment of electronic services (E-Services) beyond urban and

other densely populated geographical regions. There is therefore a need to deploy broadband networks to underserved areas.

(b) Policy Objective

Citizens must be able to obtain efficient and reliable telecommunications and communications services island-wide at reasonable and affordable rates.

(c) Policy Recommendations

- (i) Zoning underserved areas and provide incentives to maximize access to broadband services.
- (ii) Support programmes that specifically target certain groups such as low-income households, the elderly and the disabled.
- (iii) Establish a micro-financing fund which will provide loans, grants, equity in projects run by small local entrepreneurs, local authorities and non-profit organizations to encourage the expansion of ICT access.
- (iv) Offer incentives to promote the deployment of services to underserved areas and the provision of Access Points and multi-function telecentres or internet cafes by the carriers, smaller rural service providers or other providers.
- (v) The continuation of funding connectivity services to all public institutions including educational institutions, libraries, and other public facilities in urban and rural communities.
- (vi) The provision of internet access devices and applications for the training of students in the use of the internet and other ICT services will also be funded through the Universal Access Fund Company to support the Government's vision of information and knowledge based society, with the capacity to develop the telecommunications sector and to compete globally.

10.3 Policy Element – Funding of Universal Service Obligations

(a) Policy Issue

There is the need to retain a financing methodology capable of generating a sustainable source of funds to meet the universal service obligations across the country. This was provided for in the Telecommunications Act 2000 and is consistent with the practice in some countries whose governments cannot afford to fund such expenses from general revenue.

(b) Policy Objective

To continue with the requirements for telecommunications service obligations to fund universal service obligations.

(c) Policy Recommendations

- (i) The Telecommunications Act should make specific provision for the Universal Access Fund to be empowered to collect and administer the universal service obligations.
- (ii) The Telecommunications Act should make specific provisions for the obligations to be used to finance the universal service programmes set out in this policy or determined necessary for the fulfillment of the policy objectives.
- (iii) Emphasis should be placed on using the obligations to finance broadband access. This should include appropriate hardware, software and electronic educational content (web-based applications).
- (iv) Universal Service obligations shall be as agreed between the government and stakeholders or as prescribed by government from time to time.

11.0 CONSUMER PROTECTION AND STANDARDS

11.1 Policy Element - Quality of Service

(a) Policy Issues

Consumers at times experience poor quality of service. This includes “dropped calls”, unavailability of network and services, long problem-resolution time and breach of technical standards.

(b) Policy Objective

To have an efficient and reliable telecommunication service that conforms to international technical and quality of service standards.

(c) Policy Recommendation

The regulator should prescribe quality of service and technical standards, in keeping with best practices in the global telecommunications industry, which shall be met by each telecommunication service provider.

11.2 Policy Element - Privacy of Customer information

(a) Policy Issues

Customer privacy can be compromised by virtue of unauthorized access to certain telecommunications services. Possible violations include archiving of personally identifiable customer information for marketing and sales purposes without prior written or electronic consent, and failure to disclose policy regarding usage of information, unauthorized recording of communication and installation of rogue programmes.

(b) Policy Objective

To minimize the incidents of invasion of customers' privacy and the unauthorized usage of customers' information

(c) Recommendation

Where no legal provision or insufficient legal provision exists, legislation will be enacted to protect the privacy of customers and prevent the misuse of or unauthorized usage of information. Provisions will be made in the Law for persons whose privacy have been violated to seek redress.

11.3 Policy Element - Improper Use of Service or Facility

(a) Policy Issue

There is, at present, in-adequate legislative provisions to prevent a carrier and/or service provider from knowingly using or/and allowing its services and/or facilities to be used to defraud, abuse, annoy, threaten, or harass anyone.

(b) Policy Objective

To have timely and effective recourse in the event of any such improper use of services and facilities.

(c) Policy Recommendation

There should be legislative provisions to empower the regulator to intervene in the event that carriers and service providers are not sufficiently responsive to customer complaints. Provisions will be made in the Law for redress.

11.4 Policy Element - Non-discrimination and Continuity of Supply

(a) Policy Issue

There is an absence of adequate legislative provisions to ensure that carriers and service providers do not act in a discriminatory fashion against retailers and final consumers in the provision of services.

(b) Policy Objective

To ensure the absence of discrimination against retailers and final consumers of services, in the provision and maintenance of these services

(c) Policy Recommendation

- (i) There should be legislative provisions to empower the regulator to intervene in the event of discriminatory conduct on the part of the carriers and service providers.
- (ii) The new Telecommunications Act will empower the regulator to approve the terms and conditions pursuant to which a carrier or service provider may discontinue specified services to either party or to consumers; and to enforce compliance with such terms and conditions.

12.0 TELECOMMUNICATIONS INFRASTRUCTURE

12.1 Policy Element – Strategic Broadband

(a) Policy Issue

Many countries, states, counties and cities are building modern telecommunications infrastructures and offering advanced services to provide a competitive edge in the bid to attract investments to develop their societies. There needs to be a high capacity backbone network to efficiently convey, across Jamaica, multi-media traffic which originates from all the access technologies such as fixed and mobile wireless, PSTN voice and ADSL and cable modem. Access to the public rights of way can then be regulated. This, in turn, should provide a national platform for the deployment of advanced telecommunications services at internationally competitive prices.

There is a need to for a telecommunications infrastructure capable of providing assistance in matters dealing with public emergency, safety, national security and defence. Additionally, there also exists a need for the Government's telecommunications and information and communications technology (ICT) systems to be developed based on international standards and protocols so that they can be fully integrated. Greater strategic planning and coordination of implementation can rectify the existing problem of multiple incompatible networks in the public sector.

(b) Policy Objective

- (i) To establish a high capacity backbone to convey multi-media traffic across Jamaica which will facilitate the public good, commercial and national security considerations.
- (i) To regulate public rights of way to the high capacity backbone.
- (iii) To implement a comprehensive and integrated telecommunications system that will link all government entities in order to enable efficient and cost-effective communications across the public sector

(c) Policy Recommendations

- (i) Legislative provisions will be enacted to facilitate the establishment of a public high capacity backbone network to efficiently convey, across Jamaica, multi-media traffic which originates from all the access technologies such as fixed and mobile wireless, PSTN voice and ADSL and cable modem. Access to the public rights-of-way will also be regulated in companion legislation.
- (ii) The Government will harmonize the ICT system across the public sector so that it is fully integrated, compatible, efficient and cost-effective. The Government will also establish common telecommunications and ICT standards and protocols for use in the public sector, and require all ministries and agencies to conform to such standards as they develop their respective systems.
- (iii) With respect to network infrastructure, this should comprise infrastructure owned by the different arms of Government being inter-connected to privately owned networks where it is economical to do so.
- (iv) Private companies/carriers should be encouraged to enter into agreement with Government for the rolling out of fiber optic cables or other existing and emerging infrastructure technologies along roadways.
- (v) The network topology should consider and take advantage of the existing fiber deployments and other telecommunications network infrastructure, the national road network and utility rights of way. Network topology should incorporate metro network designs for the urban centres using near shore submarine, terrestrial subterranean and aerial means, and feeder links for remote areas.

13.0 TECHNOLOGY

13.1 Policy Element - Technology Neutrality

(a) Policy Issue

There is a growing range of technological options for delivering ICT services. Some traditional options are more accepted and protected; resulting in the tendency to resist and restrict new and emerging alternatives.

(b) Policy Objectives

The objective is to create a policy environment whereby all existing and emerging technologies can compete so that there is continuous technological innovation and development thereby benefiting the consumers.

(c) Policy Recommendations

This policy is technologically neutral and is intended to encourage innovation and new investments for the introduction of new technologies and services for the benefit of the sector and consumers.

13.2 Policy Element – Emerging Technologies

(a) Policy Issue

There are emerging technologies which offer end-users access to a variety of networks and are based on IP technology. Therefore, they rely on much cheaper bandwidth and make available a wide range of services. These services include the provision of Voice over IP, IPTV and services on fixed line, mobile and cable networks. There is an increasing amount of voice traffic that is being transmitted through IP networks. This has implications for telecommunications prices and universal service obligations.

(b) Policy Objective

To effectively regulate the sector to ensure maximum benefits to the consumers, operators and Jamaica afforded by the range of available and emerging technologies. The regulatory intent is to ensure a high quality of service standard and non-discriminatory treatment of services carried over different networks.

(c) Policy Recommendation

Provisions will be made in the new Telecommunications Act to ensure that the country, the telecommunications industry and consumers benefit from emerging technologies. Specific provisions will be promulgated for regulations related to the transmission of voice, VoIP regulation, quality of service, price regulation, international settlement, interconnection, content regulation, licensing and termination charges across networks.

14.0 THE ENVIRONMENT

14.1 Policy Element – Treatment of ICT Waste

(a) Policy Issues

There is lack of guidelines for the disposal of telecommunications and ICT equipment which may cause potential environmental and health risk to the population. Retailers/suppliers are currently not responsible for ensuring that their customers are aware and safely dispose of their materials and equipment.

(b) Policy Objective

To ensure safe disposal of hazardous materials.

(c) Policy Recommendation

- (i) The Government will mandate that the relevant Authority develops a comprehensive policy for the disposal of wastes that adequately covers the telecommunications and ICT sector.
- (ii) Retailers/suppliers are to advise consumers of the manufacturers' safety recommendations and provide instruction and facilities for the safe disposal of ICT waste.

14.2 Policy Element – Levels of Emission

(a) Policy Issues

ICT equipment and materials have the potential to emit harmful radiation.

(b) Policy Objective

To determine the levels for safe emission and to ensure that emissions do not exceed a limit beyond which exposure becomes harmful to the population.

(c) Policy Recommendation

- (i) The Government will mandate that the relevant Authority develops a comprehensive policy for safe levels of emission in accordance with recognized international standards or best practices.
- (ii) Provisions will be made for the relevant Authority to enforce compliance with the prescribed emission standards and allow for redress for persons affected by breaches.

14.3 Policy Element – Policy Review

(a) Policy Issues

Given the dynamic nature of the telecommunications and communications sector, it is important to ensure that the Policy framework remains relevant and adequately addresses all issues.

(b) Policy Objective

To provide a mechanism to support the review of the Telecommunications Policy.

(c) Policy Recommendation

- (i) The Ministry will establish a mechanism for the collection of relevant information from operators and the comprehensive research to identify relevant issues, trends and other matters that may affect the sector.
- (ii) The Ministry will establish a formal mechanism for periodic reviews of the Policy, taking into consideration the information collected, research done and feedback from key stakeholders.

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