

## **Supporting Document 3.4 (2)**

### FEDERAL NEGARIT GAZETA OF THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

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#### COUNCIL OF MINISTERS REGULATION NO. 47/1999 COUNCIL OF MINISTERS REGULATIONS TO PROVIDE FOR THE REGULATION OF TELECOMMUNICATION SERVICES

These Regulations are issued by the Council of Ministers pursuant to Article 5 of the Definition of Powers and Duties of the Executive Organs of the Federal Democratic Republic of Ethiopia Proclamation No. 4/1995.

#### PART ONE

##### *General*

#### 1. *Short Title*

These Regulations may be cited as the “Telecommunication Service Council of Ministers Regulations No. 47/1999.”

#### 2. *Definitions*

- 1) Definitions provided under the Telecommunication Proclamation No. 49/1996 shall apply to these Regulations.
- 2) In these Regulations, unless the context requires otherwise:
  - (a) “Agency” means the Ethiopian telecommunications Agency;
  - (b) “Licensee” means the holder of telecommunication service license issued under these Regulations;
  - (c) “Local Network” includes the local exchange, the junction network and the access network;
  - (d) “Priority Customers Target” means a target indicating the total number of new exchange lines to be brought into service for priority customers to be specified by the agency;
  - (e) “Public Call Office Target” means a target indicating the total number and regional distribution of new public call offices to be brought into service;
  - (f) “Public Pay Phone Target” means a target indicating the total number of coin or card operated telephones to be brought into service;
  - (g) “Public Switched Telecommunication Network” includes the Local Network, the National Long Distance Network and the International Network;
  - (h) “Public Switch Telecommunication Service” means any service to be provided using Public Switched Telecommunication Network;
  - (i) “Roll-out Target” means telecommunication service expansion target to be set by Agency and may include Public Pay Phone Target, Under-Serviced Line Target, Priority Customers Target and Public Call Office Target;
  - (j) “Telecommunication Service License” includes public license, cellular mobile service license, internet service license and data communication service license;

- (k) "Service Target" means a target to be set by the Agency regarding the provision of quality of service by the license;
- (l) "Under-served Line Target" means a target indicating the total number of new exchange lines to be brought into service for zonal and Woreda and other towns of the regional states lacking the provision of telecommunication service.

## PART TWO

### *Telecommunication Service License*

#### 3. *Application of License*

- 1) Application for telecommunication service license shall be in the form prescribed by the Agency and shall contain:
  - (a) Identity and address of the applicant;
  - (b) Documents showing the applicant's financial situation, technical competence and experience
  - (c) Such other information the Agency may determine by directives.
- 2) Information provided to the Agency pursuant to the provision of this Article shall be confidential.

#### 4. *Grant of License.*

- 1) The Agency shall, upon payment by the applicants of the prescribed fees, grant the requested license within 90 days of the submission of the application; provided, however, that no license shall be granted unless the Agency is satisfied that the applicant has the required technical competence, financial resource and experience to fulfill the obligation relating to the license requested.
- 2) No license shall be granted under these Regulations unless the applicant is eligible to invest in the sector pursuant to the provisions of the relevant investment law.

#### 5. *Refusal of License*

- 1) If the Agency determines that application or the information supplied or the qualifications, experience or financial capacity of the qualifications, experience or financial capacity of the applicant in connection with the proposed license is materially inadequate in relation to the criteria set by the Agency, it shall so notify the applicant in writing setting the reasons of its decision.
- 2) The applicant shall be permitted to consult with the Agency in order to provide all evidence in support of its position, shall be afforded a time not less than 30 days to overcome the objection of the Agency and shall be entitled to amend or complete its application.
- 3) If, following such consultation and expiry of such time, the Agency still believes that application or the information supplied or the qualification of the applicant are materially inadequate to justify the grant of license, it shall so notify the applicant in writing.

#### 6. *Contents of a License*

A Telecommunication license, shall as may be appropriate, specify:

- 1) The name of the licensee;
- 2) The installation to which it applies and location of such installation;
- 3) The service in respect of which it is issued;
- 4) Roll-out target; and,
- 5) Service target;

7. *Duties of Licensee*

A licensee shall:

- 1) Fulfill the Roll-out Target and Service Target specified in the license;
- 2) Publish the charges and other terms and conditions specifying the method which is to be adopted for determining the charges that are applicable to its services other than Basic Telecommunication Service;
- 3) Maintain its telecommunication installation in such condition so as to provide safe, adequate and efficient service;
- 4) Allow to the Agency to its installations;
- 5) Furnish to the Agency such report, documents and information concerning its installations and operations as the Agency may request;
- 6) Continue to apply the existing numbering plan until the Agency prescribes a new numbering plan.

8. *Amendment of License*

- 1) The Agency may amend the license upon request of the licensee where it finds the request justifiable.
- 2) The Agency may, on its own initiatives, amend a license if it considers the amendment it be necessary for reason of public interest; provided, however, that such amendment shall not substantially affect the operational and financial viability of the licensee.

9. *Duration of License*

- 1) The duration of a license for Public Switched Telecommunication Service may not exceed 25 years.
- 2) The duration of a license for cellular mobile service may not exceed 10 years.
- 3) The duration of a license for Internet service may not exceed 10 years.
- 4) The duration of a license for data communication service may not exceed 10 years.

10. *Renewal of License*

A license may be renewed for successive periods, if the license:

- 1) Has submitted to the Agency a renewal application together with its business plan at least six months prior to the expiry of the license;
- 2) Is not in branch of any provisions of the Telecommunication Proclamation No. 49/1996, these Regulations and directives issued hereunder which constitute grounds for revocation of its license; and
- 3) Agrees to upgrade its operations by replacing outdated technology with new technology, provided, however, that the duration of each renewal shall not exceed half of the initial period of the license.

11. *Revocation of License*

1) The Agency may revoke a license where the licensee:

- (a) Has failed to fulfill the Roll out Target or Service Target specified in the license;
  - (b) Failed to follow the technical standards applicable to the service;
  - (c) Violates the traffic set by the government; or
  - (d) In transmission of the law:
    - (i) Provides inferior service;
    - (ii) Violates public interest.
- 2) No revocation of license shall be made by the Agency unless the licensee has been given adequate opportunity by the Agency to rectify the situation or failure.

1. *Termination of License*
  - 1) A license shall terminate if:
    - (a) It is not renewed pursuant to Article 10 of these Regulations;
    - (b) It is revoked by the Agency pursuant to Article 11 of these Regulations; or
    - (c) The license is declared bankrupt or dissolved.
  - 2) Upon termination of a license the government may take over, in consideration of compensation on the basis of book value or replacement cost whichever is lower, the facilities of the licensee which are absolutely necessary to continue, without interruption, the telecommunication service.
  - 3) If the Government does not desire to take over the facilities, the licensee may be obliged to remove such facilities at its own cost.
  
2. *Fees*
  - (1) Fees to be paid for the issuance of license shall be as follows:
 

(a) For Public Switched Telecommunication Service .....	Birr 200,000
(b) For cellular mobile service .....	Birr 200,000
(c) For Internet service .....	Birr 100,000
(d) For data communication service .....	Birr 100,000
  - (2) Fees to be paid for the amendment, upon request of the licensee, or renewal of a license shall be 50% of the fee required for the issuance of such license.
  - (3) The fees under this Article shall not include fees to be paid for frequency allocation.

### PART THREE

#### *Telecommunication Service Price and Tariff*

14. *Scope of Application*
  - 1) The provision of this part shall apply to the price and tariff of Basic Telecommunication Service.
  - 2) The provision of this part shall also serve as criteria for setting, by the licensee, the price and tariff of telecommunication service other than Basic Telecommunication Service.
  
15. *General Principle.*
  - 1) Telecommunication service principle shall be based on the principle of economic efficiency, public interest and economic viability of the operation of the service.
  - 2) Costs shall be allocated to customers proportional to the burden they impose in the system with the exception of cost incurred to provide Basic Telecommunication Service for under-served areas.
  - 3) The tariff level shall be sufficient enough to ensure the sustainability of service provision and the attraction of fresh investment in the sector.
  - 4) The tariff structure shall consider differential rates included by the elasticity of demand and the varying demand schedules of service.
  
16. *General Pricing Approach*  
 Telecommunication service prices shall be set on the basis of:
  - 1) the systems marginal cost; and
  - 2) optimum system planning.
  
17. *Telecommunication Access Service Pricing*
  - 1) The telecommunications access service cost shall be determined on the basis of the cost attributed to the network access component.
  - 2) The connection fee shall be computed on the basis of the marginal invested capital cost attributed to the access network; provided, however, that such cost shall not include the cost of customer premises equipment.

- 3) The rental fee shall be computed on the basis of the marginal cost attributed to upkeep and maintain the access network.

18. *Telecommunication Call Service Pricing*

- 1) The call service cost shall be determined on the basis of the cost attributed to the network component.
- 2) In case where a given network is employed for the joint use of various call service groups the cost shall be proportioned on the basis of assigning a share of the common call service.
- 3) A marginal call service cost shall be computed for each call service.
- 4) Long distance and international call service rates shall be time and distance sensitive where distance is a factor.

19. *Other Charges*

Other charges applicable to Basic Telecommunication Service may be effected in accordance with a contractual agreement between the licensee and customers subject to the approval of the Agency.

20. *Tariff Revision*

Tariff revision shall be conducted whenever compelling circumstances occur; provided, however, that the maximum time between intervals may not exceed four years.

21. *Books of Accounts*

- 1) A licensee shall keep books of accounts of its operation basis on generally accepted accounting principles of the Agency.
- 2) The licensee shall submit audited reports of its accounts to the Agency within six months from the end of the Government's fiscal year.

PART FOUR  
*Technical Standards*  
Chapter One  
*General*

22. *Technology Choice*

- 1) The technology to be employed in the different parts of the telecommunication networks shall be selected by considering future developments in telecommunications and customer service equipment. In particular, it shall be digital, field proven, and shall employ the latest techniques in the field of telecommunications.
- 2) All telecommunications equipment to be used shall be compatible to existing network system.

23. *System Modularity*

Telecommunication systems shall have a high degree of modularity so that new services and features could be implemented with minimum charges in hardware and/or software.

24. *System Configurations*

Telecommunications systems and networks shall employ redundant or duplicated configurations so that failure on circuit element or component may not affect the overall performance of the system

25. *Reliability of Performance*

- 1) The performance of individual components and units of equipment and the system as a whole shall ensure very high standard or reliability.

- 2) Mean failure rate, mean time to repair faults and mean time between failures for the whole system shall be in compliance with the standard set by the Agency.

26. *Equipment Dimensioning*

Equipment Dimensioning shall consider the following:

- 1) avoidance of major disturbances in handling overload traffic;
- 2) minimizing dial tone and call setup delay under normal and over load condition; and
- 3) maintaining appropriate level of service.

27. *Signaling Systems*

- 1) Modern signaling systems which are flexible and having additional features shall be used whenever technically possible.
- 2) Inter-working between the different signaling systems and backward compatibility shall be guaranteed.
- 3) The technical requirements for the different signaling systems to be used in the national network shall be in accordance with the existing signaling systems.

28. *Safety Requirements*

- 1) Flammable material shall be used in any telecommunications equipment.
- 2) Protection arrangements shall be provided to ensure human safety when equipment voltage and/or current are at the level dangerous to human life.
- 3) Harmful radiation due to radio frequency, heating, harmful ionization or optical radiation shall be protected to ensure human safety. Radioactive materials shall never be put into use.

29. *Protection of Telecommunication Equipment*

- 1) Ground system for equipment and antenna supporting structure shall be made properly.
- 2) All metallic enclosures of electrical equipment, racks, wave-guides, and outer conductors of coaxial feeders shall be secured and connected to the grounding system.
- 3) Lightning protections shall be provided for telecommunication equipment whenever deemed necessary.
- 4) Proper over-voltage and over-current protections shall be provided for all telecommunication equipment.
- 5) All metal parts of the telecommunication equipment and system shall be protected against corrosion.
- 6) The electronics part of the telecommunication equipment shall be protected from dust.
- 7) Air condition shall be for telecommunications equipment, where deemed necessary.

30. *Marketing of Telecommunication Equipment*

- 1) Each unit and part of any telecommunication equipment shall have type, model and serial number clearly and suitably labeled.
- 2) Any electrical electronics components of telecommunication equipment shall be clearly marked and shall be provided a detailed component data.
- 3) High voltage parts of telecommunication equipment shall be clearly marked.

31. *Electromagnetic Interference*

The permissible level of electromagnetic interference shall be in accordance with directives if the Agency to be issued pursuant to Sub-Article (3) of Article 52 of these Regulations.

32. *Environmental Conditions*

All telecommunication equipment shall be able to operate in the environmental conditions specified by the requirements.

33. *Power System*

- 1) Power system design and performance shall be consistent with the overall system performance requirements.
- 2) The direct current power supplies voltage for all telecommunication equipment shall be negative 48 volts.
- 3) The power supply systems shall include rectifiers, common control equipment and a floating battery bank connected across the rectifiers.
- 4) The rectifiers shall be designed with a minimum of 50% reserve capacity.
- 5) In places where commercial power supply is not available, there shall be a solar power system to provide the necessary power required by telecommunication equipment.

CHAPTER TWO

*Technical Standards for Public Switched Telecommunication Network*

34. *General*

Any telecommunication equipment shall comply with the International Telecommunication Union Recommendations, Regulations and Standards.

35. *Digital Trunk and Junction Network*

Digital trunk and junction network interface shall be in accordance with the international standard adopted by the Agency.

36. *Radio Transmission Equipment*

- 1) The geographical coordinates of every radio station should be clearly indicated.
- 2) Major transmission systems shall be provided with a service channel, which could be used for communication, is and transfer of information.
- 3) Digital multiplexing hierarchies and techniques shall be based on the international standard adopted by the Agency.

37. *Antenna and Antenna supporting Structures*

- 1) Every antenna and antenna supporting structure, including the antenna system shall be strong enough to resist the highest wind pressure expected in the area of installation.
- 2) Where necessary, signal lighting system and reflective paints shall be affixed to the tops of antenna supporting structures in conformity with directives of the Agency

38. *Customer Premises Equipment*

- 1) Customer premises equipment shall be compatible with the existing system.
- 2) The Agency shall issue detailed technical standards for customer premises equipment.

39. *Cable Network Design*

The design of cable network shall aim at optimum service provision taking quality, flexibility, reliability, economy and maintainability into consideration.

40. *Underground Cable Installation*

Safety guards and other proper warning devices shall be provided in all underground cable installations in accordance with the directives of the Agency.

41. *Aerial Cable Installation*

- 1) Aerial cable shall be able to withstand transversal wind pressure in the area of installation.
- 2) The maximum pole span shall not exceed 50 meters without any strengthening measures of keeping the required strength.
- 3) The allowable sag of the aerial cables shall be limited to less than 0.8 meters at an ambient temperature of 45°C under windless condition.
- 4) The minimum clearance between ground and the aerial cable including drop wires shall be at least 4.5 meters; provided, however, that the minimum clearance at road may be less than 6 meters.
- 5) The clearance between telecommunication and power cables shall be determined in accordance with this Electricity Operations Council of Ministers Regulations No. 47/1999.

*42. Cross connection cabinet Installation*

- 1) Cross connection cabinets shall be placed on the side walk away from the carriage way in such a way that public inconvenience could be minimized and any damage to the cabinet could be avoided.
- 2) Cabinets shall be properly locked and protected from traffic by suitable protecting mechanisms.

*43. Drop Wire Installation*

- 1) The sag of one pair of drop wire shall not exceed 0.4 meters under an ambient temperature of 4.5°C
- 2) The drop wires shall be covered with adequate installation protector.

### CHAPTER THREE

#### Cellular Mobile Network

*44. General*

- 1) The cellular mobile network system of the licensee shall be digital and be capable of providing:
  - a) comprehensive range of data, short messages and supplementary services; and
  - b) roaming facility.

*45. Connection to the Public Switched Telecommunication Network*

The interface with the Public Switched Telecommunication Network shall be made via digital links and shall use signaling system No. 7 according to International Telecommunications Union Recommendations.

*46. Frequency Allocation*

The licensee shall operate the cellular mobile service within the designated frequency bandwidth and shall use only the spectrum specially allocated to it by the Agency.

### PART FIVE

#### *Telecommunications Services Standards And Roll-out Target*

*47. Service Targets*

- 1) The Service target indicators shall be prescribed by the Agency in consultation with the licensee.
- 2) Service target indicators may include the following:
  - a) Number of telecommunication lines faults per line per annum;
  - b) Percentage of line faults cleared within:
    - (i). 8 working hours,



- (ii). 40 working hours,
- (iii). More than 40 working hours,
- c) percentage of public payphones in operation in a given period of time
- d) Percentage of reduction of existing waiting list in a specified period of time.

48. *Customer Support Services*

- 1) The licensee shall establish procedures for efficient customers support services.
- 2) Bills to be issued to customers shall clearly indicate the type of service and the units for which charges are made.
- 3) All fault-reporting calls shall be free of charge.

49. *Roll-out Target*

- 1) Roll-out Target setting shall be carried out based on the national telecommunication development policy and properties set forth by the Government.
- 2) Without limiting the generality of sub-article (1) of this Article the Agency shall, in setting the Roll-out Target, take into account:
  - a) the growth of telephone penetration rate;
  - b) the reduction long waiting lists;
  - c) the extension of telephone services to rural areas;
  - d) the provision of new and enhanced services;
  - e) the creation of a modern and reliable national network; and
  - f) the business plan of the licensee.

50. *Emergency call Services*

- 1) All calls to fire brigades, ambulance services, police stations and other organizations providing assistance to the public in emergencies which are determined as such by the Agency, shall be free of charge.
- 2) Special numbers shall be assigned for emergency call services.
- 3) Appropriate emergency call service facilities shall be installed on main highways at an interval of 50killo meters when circumstances so warrant. The use of such facilities shall be free of charge.

51. *Directory Service*

- 1) The licensee shall issue, printed directories to be provided to customers free of charge, within periods of intervals to be specified by the Agency.
- 2) The licensee shall provide customers with online directory services

PART SIX

*Management Of Frequencies And Radio Regulations*

52. *National Frequency Allocation Plan*

- 1) The agency shall prepare a national frequency allocation plan.
- 2) The national frequency allocation plan shall, in particular:
  - a) define how radio frequencies are used;
  - b) aim at ensuring that the radio frequency spectrum is utilized and managed in an orderly, efficient and effective manner;
  - c) avoid obstacles to the introduction of new technologies and telecommunication services.
- 3) The Agency shall issue directives on radio regulations.

53. *Granting of Permit for Use of Frequencies*

- 1) The issue and use of radio communication equipment shall only be authorized if, the holder of the equipment has obtained a permit for the use of frequencies, and they are in compliance with directives of the agency to be issued pursuant to Sub-Article (3) of Article 52 of these Regulations.
- 2) The fees to be paid by the frequency spectrum users shall be fixed by directives of the Ministry of Transport and Communications.

54. *Regulation of Frequencies*

Upon assigning frequencies to a transmitting or receiving station all technical and operational data including the spectrum and geographical coordinates shall be entered in the national frequency register to be kept by the Agency.

55. *Frequencies Allocated for Broadcasting Services*

The provisions of this part and directives of the Agency to be issued on radio regulation shall be applicable to frequencies allocated for broadcasting services without affecting the powers given to the Ethiopian Broadcast Agency under the provisions of other relevant laws.

PART SEVEN  
Miscellaneous

56. *Interconnection*

- 1) A license shall interconnect its telecommunication system to the telecommunication system of such other licensee.
- 2) The technical inter-operability and availability conditions shall be fully conducive for interconnection.
- 3) An agreement relating to the interconnection shall be entered into by the licensees.
- 4) The Agency shall issue directives relating to interconnections. Such directives shall determine, among others:
  - (a) the time limit for interconnection
  - (b) the technical conditions and the quality of service to be provided through interconnections;
  - (c) fees and costs of interconnections.
- 5) Any dispute arising between licensees in the course of negotiation for interconnection shall be referred to the Agency for arbitration. The decision of the Agency shall be final and binding.

57. *Power to Issue Directives*

Without prejudice to the powers given to the Agency by these Regulations, the Ministry of Transport and Communications shall have the power to issue directives necessary for the proper implementation of these Regulations.

58. *Transitory Provisions*

- 1) The existing telecommunication service operator shall, within twelve months from the effective date of these Regulations, obtain the required licenses to be issued in accordance with these Regulations.
- 2) The requirements provided for under part 4 of these Regulations with regard to choice of technology and specific technical standards, shall only be applicable to new installations to be brought into service after the effective date of these Regulations.

59. Effective Date

These Regulations shall enter into force on the date of their publication in the Federal Negarit Gazeta.

Done at Addis Ababa this 27<sup>th</sup> day of April, 1999.

MELES ZENAWI  
PRIME MINISTER  
OF THE FEDERAL DEMOCRATIC  
REPUBLIC OF ETHIOPIA