

**ECTEL**

**DRAFT**

**POLICY ON THE ALLOCATION AND ASSIGNMENT OF FREQUENCIES IN THE 700 MHz BAND**

**Approved at ECTEL's 47th Board of Directors Meeting in April 2009**

# **POLICY ON THE ALLOCATION AND ASSIGNMENT OF FREQUENCIES IN THE 700 MHz BAND**

## **1.0 INTRODUCTION**

### **1.1 BACKGROUND**

Internationally, the 700 MHz spectrum band which was previously used for analog television broadcasting is now being allocated for new broadband wireless applications. This transition is one of the last major evolutions in Television Broadcasting in North America.

In the ECTEL Regional Spectrum Management Plan, this Band - Ultra High Frequency (UHF) television broadcasting channel 52 (698 MHz) to channel 69 (806) MHz - is allocated for Broadcasting. Presently there are no frequencies assigned in this band to any operator in the ECTEL Member States. The band is therefore available for assignment without restriction. A moratorium on the assignment of any frequencies in this band is presently in effect.

With the digitization of the UHF TV channels, this band is now available to be used to offer broadband services such as the WiMAX technology services. The ECTEL Member States have already received several applications for the use of this band and must now therefore consider a new band plan to facilitate the provision of new services and applications in the 700 MHz band. Appropriate, amendments to the Spectrum Regulations and Spectrum Fees Regulations would be incorporated in the ongoing revision of both Regulations.

In developing the 7000 MHz band plan, ECTEL consulted with interested parties on the development of policy to guide the process.

### **1.2 CONSULTATION**

During the period December 22<sup>nd</sup> 2008 to February 18<sup>th</sup> 2009, ECTEL conducted a Public Consultation **on a Policy for the allocation and award of frequencies in the 700 MHz band**. The consultation was conducted to examine the modalities of allocation and assignment of frequencies in the band consistent with internationally accepted approaches for the allocation, use and pricing of scarce natural resources. The Consultation document provided the necessary background and context for policy development.

This Policy for the allocation and assignment of frequencies in the 700 MHz band takes account of the comments received during the consultative process.

## **2.0 POLICY OUTLINE**

### **2.1 POLICY GOALS**

The need to make broadband more accessible has been among the primary recommendations of studies on universal access which also identify the expansion of broadband as a basis for expanded use of ICT in all aspects of economic activity. By designating the band for broadband wireless access, the 700 MHz Band provides the opportunity of achieving universal service in broadband access and internet connectivity thereby facilitating increased levels of Internet penetration. It must be noted though that provision of new broadband services in this band by itself cannot automatically lead to increased levels of penetration given that the absence of affordable access devices was listed as a major deterrent to this increase. The 700 MHz technology provides the opportunity to the provider for a reduction in cost of provision and an increase in the speed of deployment. It is expected that efficiency gains will be passed on to the consumer through a reduction in the price of services.

This Policy seeks to support a regulatory framework for new broadband wireless services and has the following Goals :

- Reduction in prices for telecommunications services.
- Attainment of universal service in broadband access and internet connectivity.
- Increase in the deployment and investment in new technologies.
- Revenue generation to ensure effective regulation of the band.
- Conversion of telecommunications services to digital platforms.

### **2.2 POLICY OBJECTIVES**

The objectives of this policy document are to:

- Provide a framework for the award of frequencies in the 700 MHz Band;
- Specify how the band will be subdivided for the allocation and assignment of frequencies in the 700 MHz Band;
- Establish the number of providers that will be accommodated in the band;
- Set the limit on the amount of spectrum that may be assigned to providers.
- Establish the approach to be used in determining Spectrum fees for the 700 MHz band.
- Ensure that the principle of technology neutrality in spectrum management is

## 2.3

### **BAND USAGE**

The band shall be used for broadband wireless service with a portion being designated for Public Health and Safety Services. Applying the principle of technology neutrality, providers can deliver any broadband service on the band using any technology of their choosing after they have obtained a licence for the service and obtained the requisite frequency authorizations.

Both Frequency Division Duplex (FDD) and Time Division Duplex (TDD) modes of operation shall be permitted in the band.

Frequency Authorization shall include standards and conditions designed to deliver reliable high quality service to subscribers and to avoid harmful interference to other users in the Band.

Frequency Authorizations shall specify maximum time frames within which assigned frequencies in the 700MHz band must be utilized to avoid revocation of authorizations.

## 2.4

### **BAND SUBDIVISION PLAN**

The subdivision of the 108 MHz space in the 700 MHz band into eighteen channels of 6 MHz each shall be maintained.

The subdivision of the band shall be allocated as follows:

- Six paired blocks with a total bandwidth of 12 MHz each (6 MHz up-link and 6 MHz down-link with guard band included) assignable to service providers.
- Two block for Public and Private Safety Network (emergency, police etc) – 6 MHz each for a total of 12 MHz.
- Four reserved blocks of 6 MHz each (totaling of 24 MHz) for future use.

**Table 1:**

<b>BLOCK</b>	<b>BANDWIDTH</b>	<b>FREQUENCY AND PAIRING</b>	<b>TOTAL BANDWIDTH</b>
A	12 MHz	(698-704 MHz and 728-734 MHz)	12 MHz
A'	12 MHz	(704-710 MHz and 734-740 MHz)	12 MHz
*B	6 MHz	(710-716 MHz)	6 MHz

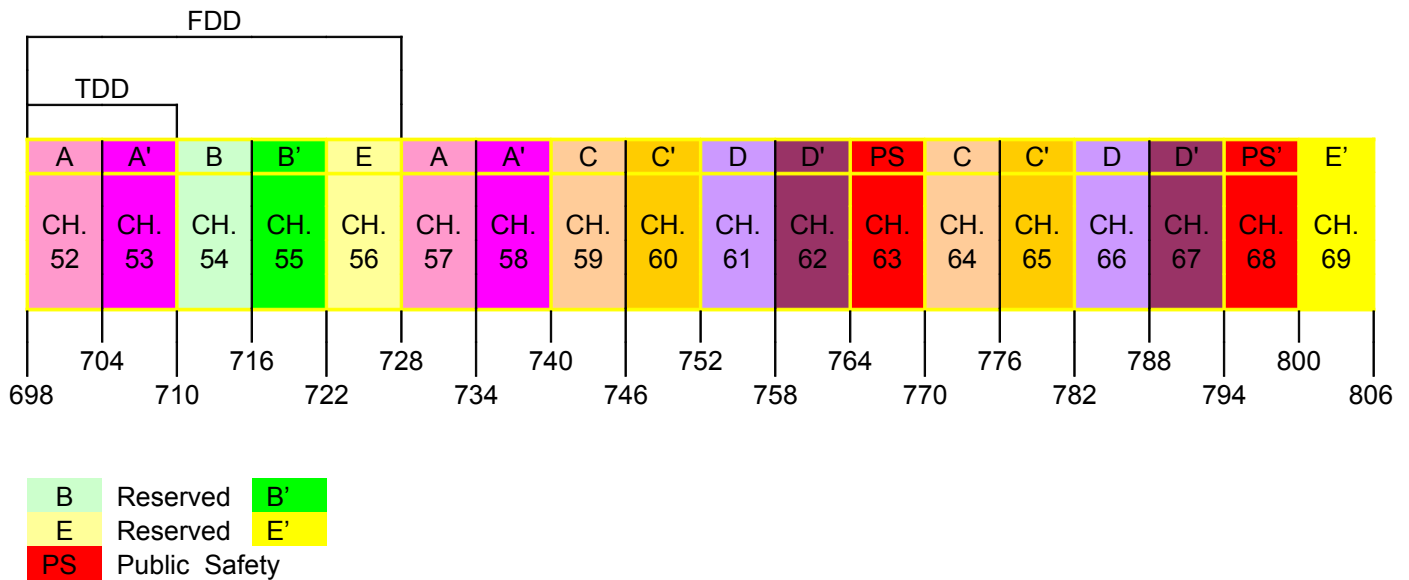
*B'	6MHz	(716-722 MHz)	6 MHz
*E	6MHz	(722-728 MHz)	6 MHz
*E'	6MHz	(800-806 MHz)	6 MHz
C	12 MHz	(740-746 MHz and 770-776 MHz)	12 MHz
C'	12 MHz	(746-752 MHz and 776-782 MHz)	12 MHz
D	12 MHz	(752-758 MHz and 782-788 MHz)	12 MHz
D'	12 MHz	(758-764 MHz and 788-794 MHz)	12 MHz
**PS	6MHz	(764-770 MHz)	6 MHz
**PS'	6Mhz	(794-800 MHz)	6 MHz

\* Reserved for future use

\*\* Public and Private Safety Network (emergency, police etc)

The Band Plan is shown in Figure 1 below.

### ECTEL's 700 MHz BAND PLAN



**Figure 1** ECTEL 700 MHz BAND PLAN

## 2.5

### **ASSIGNMENT OF SPECTRUM TO PROVIDERS**

The 12 MHz Blocks A , A' , C , C' , D & D' shall be allocated for assignment to service providers. As a general rule each blocks will be assigned as a 2 \* 6 MHz paired block, but the Commission shall reserve the right to make slight practical adjustments to this rule based on the adequately justified actual needs of providers expressed in their applications.

A provider shall not be assigned more than two such blocks. A maximum of 6 providers may be assigned those blocks. The assignment process shall aim, to the greatest extent reasonably practicable, to ensure that any provider assigned two of those blocks is assigned either blocks A&A' or C&C' or D&D'.

Every effort shall be made, to the extent reasonably practicable, to ensure that any appropriately expressed desire by any operator with networks in multiple ECTEL States to be assigned the same blocks in each State will be accommodated.

## 2.6

### **ALLOCATION FOR PUBLIC SAFETY SERVICES**

Blocks PS and PS' (totaling 12 MHz ) of the 700 MHz spectrum shall be allocated for Public Safety services. Those blocks shall be assigned to a provider to build a nation wide network that will provide safety services and also commercial services on a limited basis and secondary basis.

Consideration will be given to the deployment of this system as an OECS-wide network which will be facilitated by using the same blocks of frequencies in all Member States.

### **2.7 EQUIPMENT SPECIFICATIONS**

All BWA equipment operating in the 700 MHz band must adhere to or surpass the following minimum technical standards.

1. Maximum Effective Radiated Power (e.r.p)
  - a) Base Station -30 dBW
  - b) Fixed and Mobile - 14.8 dBW
  - c) Portable (Hand held) Station -4.8 dBW
2. Modulation Scheme - Digital
3. Accepted Standards FCC, Industry Canada, ETSI

Amended or additional technical operating conditions shall be provided as required for any specific Radiocommunications system that may be deployed.

## **2.8 METHODS FOR AWARD OF FREQUENCY AUTHORIZATIONS**

An administrative pricing methodology shall be employed to develop and establish new spectrum fees for the 700 MHz Band.

Frequency Authorizations shall be awarded using the applications process currently employed for frequency authorizations in ECTEL States.

\*\*\*\*\* **END** \*\*\*\*\*