

## **Radio Frequency (Allocation and Pricing) for Telecommunication Service Policy, 2023**

This Radio Frequency (Allocation and Pricing) for Telecommunication Service Policy, 2023, prepared by the Radio Frequency Policy Determination Committee, in exercise of the power conferred by Section 49 of the Telecommunications Act, 1997 for scientific, proper and effective management of available radio frequency to provide telecommunication services to telecommunication customers by using wireless new technology, shall come into force from the date of its approval.

### **1. Background**

- 1.1 The radio frequency has also been distributed in Nepal from the time when public telecommunication service using radio frequency was initiated. The use of radio frequency of telecommunication service was managed through Telecommunications Act, 1997, Telecommunications Rules, 1997, Radio Frequency (Allocation and Pricing) for Telecommunications Service Policy, 2069 and its first amendment, 2073. There is a provision of determining frequency band used in telecommunication service and its price in accordance with the decisions of the Radio Frequency Policy Determination Committee in various time.
- 1.2 In the context where all member states have managed their radio frequency subject to the timely amended Radio Regulations, adopted by the World Radiocommunication Conferences (WRC) organized by

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\* This translated version of the Policy is for reference purposes only. In case of any discrepancy, the Nepali version shall prevail.

International Telecommunication Union, ITU, Nepal has also been preparing its National Frequency Allocation Plan (NFAP) on the same basis of the Radio Regulations in timely manner.

- 1.3 Till now in Nepal, radio frequency band for different services has been determined in accordance with the international practice, ITU Radio Regulations and NFAP.
- 1.4 The ITU has divided the world into three areas as Region I, Region II and Region III for the purpose of frequency allocation. Nepal lies in Region III and amendment has been made in Frequency Policy by including policy decisions made by the ITU for that region from time to time.

However, policy is being determined by studying the situation, allocation, price of use of radio frequency and review and assessment of national and international level coordination along with the changes in technology and its impact on whole frequency management before making this type of amendment.

- 1.5 Radio frequency used in telecommunication service is of high quality limited natural resource. The price determination and distribution of frequency is already being started through competition and auction according to the international practice. The frequency is also found to be distributed at the minimum price and free of cost in some occasion to encourage the extension of the service.

## **2. Need of Policy**

This policy is required to create environment for maximum benefit to the Government of Nepal, telecommunication service provider and common consumer by making frequency allocation and management more effective by accepting new technology and use developed in international arena in relation to frequency management.

## **3. Objective of Policy**

The main objectives of issuing this policy are as follows:

- 3.1 To make policy and determine price related to frequency allocation in proper, effective and transparent way by affiliating the process of providing license for radio frequency, a limited national resource, distribution method and by accepting telecommunication area as an important support in the whole economic development.
- 3.2 To adopt principle of technology neutrality to bring service provider providing same service under same level playing field and to provide innovative technologies of telecommunication service to the common consumer in a convenient and competitive manner.
- 3.3 To make policy to distribute frequency immediately which can be distributed through competitive and auction medium subject to the use of radio frequency and its economic importance.
- 3.4 To determine limitation of minimum bandwidth and maximum bandwidth of frequency provided to service provider by also

identifying bands provided to service provider and additional new frequency.

- 3.5 To ensure access of consumer of telecommunication service to dependable and quality telecommunication services through use of innovative technologies based on radio frequency.
- 3.6 To make necessary contribution by studying and research to address matters related to frequency of Nepal at the international forum.
- 3.7 To make necessary arrangement to minimize cross border interference caused in frequency through regional and international coordination with neighbouring countries by registering frequency bands, prescribed and used for telecommunication services in Nepal, at the international organizations including International Telecommunication Union (ITU)/ Asia Pacific Telecommunity (APT).

#### **4. Principles to be adopted in radio frequency management**

The following principles will be adopted in distribution, management and determination of price of radio frequency.

- 4.1 Cellular/mobile frequency will be distributed mainly by the process of auction.
- 4.2 The principle of technology neutrality will be adopted for the use of cellular/ mobile frequency with an objective to encourage use of innovative technology making maximum utilization of frequency. Any service can be operated in any frequency band of any technology or any generation under technology neutrality.

- 4.3 No spectrum trading and spectrum sharing of frequency will be allowed.
- 4.4 Frequency spectrum reframing will be done for maximum utilization of frequency distributed at present according to international and regional practice and situation of international market related to it.
- 4.5 The capping of frequency of minimum requirement for the operation of service in any frequency band and that could be used at the maximum level will be done.
- 4.6 The frequency will be prescribed for the emergency telecommunication management.
- 4.7 The principle related to frequency band and fees will be decided subject to the radio signal propagation characteristics, radio coverage, spectral efficiency and development of ecosystem including investment required for development of infrastructure.
- 4.8 Necessary arrangement will be made to ensure the import and use only technologically useful and economical equipment in the frequency band mentioned at least in this policy in order to make compliance of customer premises equipment (end user devices) used in telecommunication network with frequency.
- 4.9 The process of identification, price determining and distribution of radio frequency will be reviewed through regular study and research of the new technology and international practice emerged in the telecommunication sector.

## **5. Basis of Radio Frequency Price Determining**

Following basis will be taken for determining radio frequency price

- 5.1 technologies (like mobile, microwave, satellite) used in radio frequency band and characteristics of radio frequency flow (Signal Propagation Characteristics, Radio Coverage and Spectral Efficiency),
- 5.2 investment required for development of infrastructure, availability of equipment and development of ecosystem,
- 5.3 demand and availability of radio frequency,
- 5.4 fee of frequency according to international practice, utility of frequency, cost of frequency management, purchasing capacity of customer and per capita income,
- 5.5 comparative study of frequency bands and prescribed fees in different frequency bands at different time by the Committee.

## **6. Classification of Radio Frequency**

Radio frequency band has been classified as follows on the basis of telecommunication service currently under operation and technology related thereto .

- 6.1 Cellular/Mobile Frequency:** Frequency used in establishment of communication between compatible mobile network and mobile equipment is considered as Cellular/Mobile Frequency.
- 6.2 Microwave Frequency:** Frequency used in establishment of communication between two stations in backbone/backhaul terrestrial

network of telecommunication service is considered as Microwave Link Frequency. Microwave link means bidirectional channel establishing communication between two stations.

**6.3 Satellite Frequency:** Frequency used in telecommunication services available by using satellite technology is considered as Satellite Frequency.

**6.4 Other Frequency**

## **7. Allocation of Radio Frequency:**

Frequency band, bandwidth, minimum and maximum bandwidth provided to the service provider based on Radio Regulations of ITU for radio frequency allocation used in telecommunication service and international practice are as follows.

### **7.1 Cellular/Mobile Frequency**

7.1.1 Different frequency bands allocated for use in mobile service and capping of minimum and maximum limit of frequency bandwidth that could be distributed in those band will be as prescribed in Schedule-1.

7.1.2 Frequency more than maximum frequency bandwidth capping prescribed in each frequency band will not be provided to any service provider.

7.1.3 No additional frequency will be provided to service providers with license of basic telecommunication service and rural telecommunication service until it has obtain license for basic

telephone service. Also, such service provider will not be provided with license of technology neutrality in prevailing frequency.

7.1.4 Service provider will be provided with five times (multiple of Five: x 5 MHz) frequency in a situation where that service provider has adopted principle of technology neutrality. In case of frequency being distributed/auctioned with no five times (multiple of Five: x 5 MHz) frequency available service provider has to add frequency five times (multiple of Five: x 5 MHz) through the auction or else frequency bandwidth more than five times (multiple of Five: x 5 MHz) has to be returned. In case of additional frequencies demanded to be five times (multiple of Five: x 5 MHz), it will be made available within maximum capping of frequency to be five times (multiple of Five: x 5 MHz) on the basis of availability. While adding bandwidth like this the auction will not be done to bandwidth less than 1 megahertz. While providing bandwidth of less than 1 megahertz in quantity, it will be in accordance with point no. 8.1.3 of Section 8.

7.1.5 After this policy come into force, service provider with license of cellular mobile telephone service or basic telephone service will be provided minimum bandwidth on the basis of availability generally of 2100 MHz among bandwidths mentioned in Schedule-1 or in any bandwidth lesser than that.

7.1.6 In case of frequency being distributed, it is divided into three level of minimum frequency, additional frequency and maximum frequency as mentioned below for the period to be

changed into technology neutrality for service provider which has already received license of cellular mobile and basic telephone service before adopting principle of technology neutrality at the time of enforcement of this policy.

**(a) Minimum Frequency**

Frequency  $2 \times 6$  MHz and  $2 \times 9$  MHz respectively in 900 MHz and 1800 MHz band provided to service provider is determined as minimum frequency. If frequency of 1800 MHz is provided to any service provider in absence of availability of necessary frequency in 900 MHz, result of multiplication of remaining frequency to be made available in 900 MHz band by 1.5 along with total frequency provided in two bands is considered as minimum frequency.

**(b) Additional Frequency**

1. Frequency till  $2 \times 2$  MHz more than minimum  $2 \times 6$  MHz in 900 MHz band and till  $2 \times 3$  MHz more than  $2 \times 9$  MHz in 1800 MHz band as mentioned in clause (a) above is considered as additional frequency.
2. Minimum frequency in 900 MHz band and 1800 MHz band is made available as mentioned in clause (a) above but frequency provided in 850 MHz band in case of service provider which was not provided with additional frequency in those bands is considered as additional frequency.

**(c) Maximum Frequency**

1. Additional frequency more than 2x2 MHz in 900 MHz band and frequency more than 2x3 MHz in 1800 MHz band as mentioned in clause (b) (1) above is considered as maximum frequency.
2. Frequency provided in 850 MHz band in case of service provider which was provided with minimum and additional frequency in 900 MHz and 1800 MHz as mentioned in clause (a) and (b) (1) above is considered as maximum frequency.

7.1.7 If frequency provided to any service provider is not utilized or if service provider did not operate service in that frequency, Nepal Telecommunication Authority will give direction to operate service in that frequency by giving additional 6 (six) months to ensure maximum utilization of frequency. If service is not operated within that period, frequency provided to the service provider will automatically be returned.

7.1.8 The principle of technology neutrality used in all cellular frequency will be adopted from 16 July 2024 (*1 Shrawan 2081*) in case of service provider with license of G.S.M. cellular mobile and basic telephone service before adopting principle of technology neutrality.

## **7.2 Microwave Frequency**

Frequency bands distributed for the purpose of microwave link will be according to Schedule-2.

## **7.3 Satellite Frequency**

7.3.1 Frequency bands distributed for the purpose of satellite frequency will be according to Schedule-3.

7.3.2 As satellite frequency bands cannot be prescribed exclusively only for the Global Mobile Personal Communication System (GMPCS) frequency distributed for satellite service will be distributed for GMPCS service. While distributing like this, frequency as per Schedule-3 that was used in satellite system used by person with license will be provided according to Radio Regulations of ITU, NFAP and international practice.

7.3.3 Authority shall provide approval of use of satellite frequency in coordination with the ministry.

## **7.4 Other Frequencies**

7.4.1 Frequency bands that does not require license for use of frequency and terms and conditions of use of such frequency will be according to Schedule-4.

7.4.2 There will be no exclusive right in frequency used in frequency band according to Schedule-4. Such frequency shall be used on non-protection and shared basis.

7.4.3 Frequency mentioned in Schedule-4 cannot be used in Backhaul/Backbone Network.

### **7.5 Change of Frequency band and bandwidth:**

Cellular/mobile, microwave link, satellite and other frequency bands and bandwidth will be changed as required according to time by looking into development of national and international in telecommunication area.

## **8. Provision related Frequency fee**

### **8.1 Fees of cellular/mobile frequency:-**

Fees of cellular/mobile frequency has been determined as follows:

8.1.1 Fees of cellular/mobile frequency will be mainly determined by process of auction.

8.1.2 At present basic price of cellular/mobile frequency bands which is distributed by auction will be as prescribed in Schedule-5. The Committee will review the base price of frequency bands mentioned in Schedule-5 as necessary on the basis of technical maturity and ecosystem development of frequency band. The basic price of cellular /mobile frequency bands except the base

price of cellular /mobile frequency bands prescribed in Schedule-5 will be determined by the Committee.

8.1.3 While adding bandwidth less than 1 MHz according to point 7.1.4 of Sub section 7.1, Section 7, frequency fee of added bandwidth will be on the basis of insolvency of price determined after auction of that band according to point no. 8.2.2 of Sub section 2 of Section 8.

8.1.4 While providing minimum frequency according to point 7.1.4 of Sub section 7.1, Section 7, frequency fee of that bandwidth will be determined on rate of base price according to Schedule-5.

8.1.5 The fee according to base price mentioned in Schedule-5 as per the principle of technology neutrality will be charged from 16 July 2024 (*1 Shrawan 2081*) in use of all cellular frequency received by it in case of service provider with license of G.S.M. cellular mobile and basic telephone service before adopting principle of technology neutrality.

**8.2 Fee of cellular/mobile frequency which was already changed in the principle of technology neutrality prior to the enforcement of this policy:-**

8.2.1 At present fee of frequency provided to service provider in 800MHz band, the payment will be done at the rate of 1 crore 35 lakh rupees of base price of that band on basis of auction per year per megahertz (unpaired). The present service provider also has

to submit frequency fee according to price from the date in force when it was decided to be sold by auction in that band.

- 8.2.2 The fee of frequency per year per megahertz (unpaired) has been decided to be 2 crore 40 lakh rupees (base price) in case of service provider who received frequency of technology neutrality before frequency auction in 900 MHz band. The fee of frequency per year per megahertz (unpaired) received after auction has been decided to be 3 crore 88 lakh 80 thousand rupees in case of service provider who received frequency after auction in 900 MHz band.
- 8.2.3 The frequency fee per year per megahertz (unpaired) has been decided to be 1 crore 80 lakh rupees (base price) in case of service provider who received frequency of technology neutrality before frequency auction in 1800 MHz band. The fee of frequency per year per megahertz (unpaired) received after auction has been decided to be 2 crore 90 lakh rupees in case of service provider who received frequency after auction in 1800 MHz band.
- 8.2.4 The fee determined by the auction of price of frequency distributed prior to the enforcement of this policy in 2100 MHz band will be collected from the service providers at the rate of 1 crore 50 lakh rupees from the date when the frequency was made available.
- 8.2.5 The frequency fee based on the base price of the band for the service provider having 2300 MHz band available shall pay at

the rate of 90 lakh rupees per MHz at present. Similarly, the fee determined by the auction of price on such band, the then service provider shall also pay the frequency fees accordingly.

**8.3 Fee of Cellular/Mobile Frequency distributed prior to Principle of Technology Neutrality:-** Following fee has been determined for frequency distributed to mobile service provider prior to the implementation of principle of technology neutrality until it is changed into technology neutrality.

8.3.1 Entire fee of minimum frequency separated for GSM mobile service has been maintained as 0.4 percent amount of total annual income of that service provider.

**Explanation:** “total income means total income obtained from any service provided through mobile service by mobile service provider.”

8.3.2 Service provider providing minimum frequency in 900 MHz band and 1800 MHz band in totality has to submit 0.4 percent of total income as minimum frequency fee.

8.3.3 Annual frequency fee has been maintained as prescribed in Schedule-6 for additional and maximum frequency.

8.3.4 Service provider with license of rural telecommunication service or basic telecommunication service will submit frequency fee at rate of additional frequency fee as prescribed in Schedule-6 for frequency obtained at present.

#### **8.4 Fee of Microwave, Satellite and Other Frequency:-**

8.4.1 Frequency fee to be submitted by service provider for microwave frequency use has been prescribed in Schedule-7.

8.4.2 Frequency fee for satellite frequency has been prescribed in Schedule-8.

8.4.3 No frequency fee will be charged for frequency use as prescribed in point 7.4.1 of Sub section 7.4, Section 7 which does not require license for frequency use.

#### **9. Frequency Fee Payment Process**

9.1 As the license for frequency use can be provided to service provider at any time, so for that fiscal year, it has to pay frequency fee within 3 (three) months from the date of distribution of frequency by the Authority.

9.2 Fee of minimum frequency as prescribed in point 8.3.1 and point 8.3.2 of Sub section 8.3, Section 8 decided on the basis of total income will be paid within 6 (six) months of completion of fiscal year.

9.3 Fees for each fiscal year as prescribed of frequencies except Sub section 9.2 provided with permission of use for service provider will be paid within 3 (three) months of the beginning of that fiscal year.

9.4 If more than one rate applies in fee of any radio frequency band in one fiscal year while receiving technology neutrality by service provider,

radiofrequency fee will be recovered in a new rate on monthly proportional basis from the month of determining new fee and as monthly proportional basis as per present till earlier month than that of. Service Provider shall pay difference frequency fee as reviewed within 3 (three) months from the date of fee review.

- 9.5 If frequency fee is not paid within period prescribed in this Section, additional fee at the rate of 2 (two) percent will be charged for every month for period till the fee is not paid.
- 9.6 If fee of frequency is not paid till 6 (six) months of initiation of additional fee as prescribed in Sub-section 9.5, the Nepal Telecommunication Authority will take back frequency provided to such service provider. After that period, fee as prescribed in Sub section 9.5 will be charged continuously for the period until the fee is paid.
- 9.7 Frequency fee will be recovered as government arrears from the service provider who is remained to make frequency fee payment.
- 9.8 The Nepal Telecommunications Authority shall submit detail report including detail of frequency, additional frequency, maximum frequencies received by telecommunication service providers and frequency fee and fine fees paid for them within the end of *Magh* ( mid-February) of every year by updating it annually, at the Secretariat of Radio Frequency Policy Determining Committee.
- 9.9 Service provider shall make payment of all arrears related to frequency before receiving new frequency or additional frequency.

## **10. Provision on Frequency Allocation through Auction**

Cellular/mobile frequency prescribed for telecommunication service by Nepal Telecommunications Authority will be allocated through auction as following.

- 10.1 Auction will be done where person without license of voice service, with expedient financial and technical capacity and experience of mobile service can participate.
- 10.2 Auction will be done for providing additional frequency to service provider with license of current mobile service, basic telephone service and mobile broadband service.
- 10.3 Nepal Telecommunications Authority will determine necessary procedure for radio frequency auction.

## **11. Provision on Mobile Broadband Service based on Radio Frequency**

- 11.1 After opening license of mobile broadband service as prescribed in Sub section (2) of Section 23 of Telecommunications Act, 1997, the process of auction as prescribed in Sub section 10.1 of Section 10 of this Policy will be initiated.
- 11.2 License of mobile broadband service based on radio frequency will be provided for a person bidding for the highest in the auction.
- 11.3 License fee, license renewable fee of mobile broadband service and its payment process, period and royalty of license will be as of basic telephone service.

11.4 Service provider with license of mobile broadband service will be provided for operation of all telecommunication services till the time of acquiring the license.

## **12. Provision on Technology Neutrality of Cellular Frequency**

12.1 Policy of technology neutrality will be adopted in all frequency bands identified for cellular frequency.

12.2 Permission of additional frequency or technology neutrality will not be provided according to this Policy for service provider with license of basic telecommunication service or rural telecommunication service.

## **13. Provision on Changing/Refarming Frequency**

13.1 Changing/Refarming and allocation of frequency will be done by making contiguous spectrum available as far as possible by making base of available frequency bandwidth and optimum utilization of frequency while changing/ refarming frequency.

13.2 Frequency received by any service provider shall be changed or reframed as prescribed by the Authority before adding frequency by that service provider.

## **14. Provision on Radio Frequency Monitoring**

The monitoring of radio frequency use will be as following:

- 14.1 Nepal Telecommunications Authority will monitor radio frequency use related with telecommunication service and its annual report shall be prepared and submitted to the Secretariat of Radio Frequency Policy Determining Committee.
- 14.2 Nepal Telecommunications Authority will prepare and implement necessary procedure on frequency monitoring of telecommunication service.
- 14.3 Infrastructure or physical resource and means in the Ministry of Communication and Information Technology will also be used in the monitoring . Financial resource of Nepal Telecommunications Authority will be used for repair and maintenance of infrastructures including upgrade and necessary training for human resource used in the monitoring .
- 14.4 Authority will make necessary recommendations to the Committee by conducting regular study and research of innovative technology and practices developed in area of use of radio frequency.

## **15. Provision on Emergency Telecommunication Service**

Committee will make necessary arrangement of radio frequency by considering Emergency Telecommunication Service and sensitivity of national security in recommendation of Nepal Telecommunications Authority.

## **16. Interference is not allowed**

- 16.1 No service provider shall operate service that makes signal flow outside than the frequency band available to itself.
- 16.2 If any service provider makes signal flow outside than the frequency band available to itself causing interference in service operated by any other service provider, Nepal Telecommunications Authority will examine immediately and give order to stop such signal to the service provider who made such signal flow causing interference.
- 16.3 Service provider causing adverse impact on quality of service by causing obstacle again and again in service operation of other service provider, Nepal Telecommunications Authority may impose fine or withdraw the provided frequency or take both action according to prevailing law.
- 16.4 An action will be taken according to prevailing law if the use of unauthorized frequency is found in frequency band prescribed for telecommunication service.

**17. Regarding Minimization of Frequency Interference in International Boundary Area**

The Authority shall conduct on-site inspection regularly and resolve the problem in coordination with the Ministry for minimization of frequency interference in international boundary area.

**18. National Frequency Allocation Plan:**

The Ministry will update and publish National Frequency Allocation Plan in recommendation of the Committee on the basis of Radio Regulations updated by World Radio communication Conference (WRC) of ITU and this Policy.

## **19. Provision on Study, Investigation and International Coordination**

- 19.1 Study and investigation will be conducted for timely change in relation to allocation of radio frequency and its distribution, use and management of radio frequency in Nepal.
- 19.2 Tools related to spectrum management recommended by ITU/APT for effective frequency management.
- 19.3 Necessary arrangement will be made for frequency coordination for spectrum harmonization with member states of ITU/APT/SATRC and Region III and to minimize cross border interference.
- 19.4 Necessary arrangement will be made to present opinion in subjects of interest of Nepal in WRC organized by ITU.
- 19.5 Necessary arrangement will be made to create environment where Nepal may take maximum benefit from decisions made by ITU/APT/SATRC organizations by increasing role of Nepal in international forums including study group/working party under ITU/APT/SATRC.

## **20. Provision on Secretariat and Sub-committee**

- 20.1 Secretariat of Radio Frequency Policy Determining Committee

20.1.1 Frequency Management Division of the Ministry of Communication and Information Technology will serve as the Secretariat of Radio Frequency Policy Determining Committee for permanent and institutional management of implementation, monitoring and record management of decisions of Radio Frequency Policy Determining Committee.

20.1.2 Necessary human resources for the Secretariat of Radio Frequency Policy Determining Committee will be provided by the Ministry and necessary equipment for operation of the Secretariat, necessary budget for study, research, etc to be conducted by the Committee will be provided by the Authority upon the decision of the Ministry.

## 20.2 Technical Sub-committee

20.2.1 Technical Sub-committee as prescribed below has been formed under Committee to support Radio Frequency Policy Determining Committee in technical nature and inter agency coordination and management activity.

Convener: Member-secretary and Secretariat Coordinator, Frequency Management Division Chief, Ministry of Communication and Information Technology

Member: Director (Frequency Management), Nepal Telecommunications Authority

- Member: Chief, Radio Frequency Monitoring Section, Ministry of Communication and Information Technology
- Member: Representative, Ministry of Home Affairs, Under Secretary (Technical) or equivalent or official above it, who does work related to radio frequency
- Member: Representative, Ministry of Defence, Under Secretary (Technical) or equivalent or official above it, who does work related to radio frequency
- Member: Representative, Ministry of Culture, Tourism and Civil Aviation, Under Secretary (Technical) or equivalent or official above it, who does work related to radio frequency
- Member: Deputy Director (Frequency Distribution and Management), Nepal Telecommunications Authority
- Member: Director (Technical), Department of Information and Broadcasting
- Member-Secretary: Frequency Management and Technology Analysis Section Chief, Ministry of Communication and Information Technology

20.2.2 The Technical Sub-committee of Radio Frequency Policy Determining Committee will be under the Secretariat of Radio Frequency Policy Determining Committee.

20.2.3 Term of reference of the Sub-committee is as following:

- a. conduct necessary discussion on and study proposals received by the Secretariat of Radio Frequency Policy Determining Committee to be presented at that Secretariat and proposals prepared by the Secretariat, study international practices on subject related to it, analysis of subject of impact made by proposed subject and perform internal agency coordination as per necessary.
- b. Prepare proposal, materials and presentation to be presented at the meeting of Committee.
- c. Conduct periodic review of implementation of decisions of Committee and present at the meeting of the Committee.
- d. Invite experts as per necessary and hold discussion at the meeting.
- e. Other activities as prescribed by the Committee as necessary.

20.2.4 Expenses and tools equipment related to meeting necessary for work performance of the Sub-committee will be provided by the Nepal Telecommunications

Authority upon request of the Convener of the Subcommittee.

### **20.3 To Publicize Decisions of Committee**

20.3.1 Decisions of Radio Frequency Policy Determining Committee will be published and updated on website of the Ministry of Communication and Information Technology and the Nepal Telecommunications Authority.

20.3.2 Details on frequency allocated and distributed in frequency bands prescribed for telecommunication service will be updated and published on website by the Nepal Telecommunications Authority.

## **21. Provision on Renewal Fee of Basic Telephone Service**

Renewal fee for basic telephone service has been prescribed as following.

21.1 A special provision has been made to receive that amount from the service provider with license of basic telephone service since the initial year of receiving license in order to ensure recover license renewal fee from that service provider.

21.2 License will be provided only in a situation where a person applying for license of basic telephone service agree the term of payment as following amount for renewal fee.

21.2.1 Service provider with license shall pay following renewal fee every year from the year of its receipt for ten years of receipt of that license.

<b>Year</b>	<b>Amount</b>
First Year	Five Crore
Second Year	Five Crore
Third Year	Ten Crore
Fourth Year	Twenty Crore
Fifth Year	Thirty Five Crore
Sixth Year	Fifty Crore
Seventh Year	One Arab
Eighth Year	One Arab Twenty Five Crore
Ninth Year	One Arab Fifty Crore

21.2.2 After payment of amount remained by reducing amount paid as per Sub section 21.2.1 of the total amount of 20,13,27,50,000/- for renewal fee while renewing in tenth year of receipt of license, then only license will be renewed.

21.2.3 It will be according to any special provision made by the Government of Nepal in recommendation of Nepal Telecommunications Authority in relation to submitting license renewal fee of mobile or basic telephone service.

## **22. As per Policy**

It will be according to this policy in the matters written in this policy. It will be according to decision of Radio Frequency Policy Determining Committee in other matters of radio frequency other than those mentioned in this policy.

## **23. Repeal and Saving**

23.1 Radio Frequency (Allocation and Cost) for Telecommunication Service Policy, 2012 (2069 B.S.) and Radio Frequency (Allocation and Cost) for Telecommunication Service Policy (First Amendment), 2016 (2073 B.S.) have been repealed.

23.2 Activities done according to Radio Frequency (Allocation and Cost) for Telecommunication Service Policy, 2012 (2069 B.S.) and Radio Frequency (Allocation and Cost) for Telecommunication Service Policy (First Amendment), 2016 (2073 B.S.) will be considered as done under this policy.

Schedule-1

(Related to Sub section 7.1 of Section 7)

**Table1: Limitation of frequency bands and bandwidth distributed for use in cellular/mobile service**

S. N.	Frequency Band	Duplexing	Frequency Range	Available Bandwidth	Minimum Bandwidth	Maximum Bandwidth	
	700 MHz	F	UL	703-748 MHz	2X45 MHz	2X5 MHz	2X15 MHz
			DL	758-803 MHz			
	800 MHz	D	UL	847-862 MHz	2X15 MHz	2X5 MHz	2X15 MHz
			DL	806-821 MHz			
	850 MHz	D	UL	824-834 MHz	2X10 MHz	2X5 MHz	2X10 MHz
			DL	869-879 MHz			
	900 MHz	D	UL	880-915 MHz	2X35 MHz	2X5 MHz	2X10 MHz
			DL	925-960 MHz			
	1800 MHz	D	UL	1710-1785 MHz	2X75 MHz	2X10 MHz	2X20 MHz
			DL	1805-1880 MHz			
	2100 MHz	D	UL	1920-1980 MHz	2X60 MHz	2X10 MHz	2X20 MHz
			DL	2110-2170 MHz			
	2300 MHz	TDD		2300-2400 MHz	100 MHz	20 MHz	100 MHz
	2600 MHz			2500-2690 MHz	190 MHz	20 MHz	100 MHz
	3700 MHz*			3300-4200 MHz	900 MHz	100 MHz	200 MHz
	26 GHz			24.25-27.50 GHz	3.25 GHz	400 MHz	1000 MHz

\* Shall be used with consideration of use of Satellite Frequency Band (Fixed Satellite Service)

Schedule-2

(Related to Subsection 7.2 of Section 7)

**Table 2: Frequency distributed for use in Microwave/Fixed Services**

S.N.	Frequency Band (GHz)	Frequency Range
1	Lower 6	5.925-6.425 GHz
2	Upper 6**	6.425-7.125 GHz
3	7	7.125-7.425 GHz
		7.425-7.725 GHz
4	8	7.725-8.275 GHz
		8.275-8.5 GHz
5	13	12.75-13.25 GHz
6	15	14.5-15.35 GHz
7	18	17.7-19.7 GHz
8	23	21.2-23.6 GHz
9	38	37-39.5 GHz
10	60	57-66 GHz
11	80	71-76 GHz
		81-86 GHz

\*\*May be used in IMT service also as per necessity after WRC-23

Schedule-3

(Related to Sub section 7.3 of Section 7)

**Table 3: Frequency bands distributed for use in Satellite Services**

<b>S. N.</b>	<b>Frequency Band</b>	<b>Frequency Range</b>		<b>Bandwidth (MHz)</b>	<b>Remarks</b>
1	L Band	Downlink	1525-1559 MHz	34	Mobile Satellite Service (GMPCS)
		Uplink	1626.5-1660.5 MHz	34	
2	C Band*	Downlink	3400-4200 MHz	800	Fixed Satellite Service
		Uplink	5850-6700 MHz	850	
3	Ku Band	Downlink	10.7-12.75 GHz	2.05 GHz	
		Uplink	13.75-14.5 GHz	0.75 GHz	
4	Ka Band	Downlink	19.7-21.2 GHz	1.5 GHz	
		Uplink	29.5-31 GHz	1.5 GHz	

\*Shall be used also considering the use of frequency bands distributed for use in Satellite Services

Schedule-4

(Related Sub section 7.4 of Section 7)

**Table 4: Other frequency bands that does not require separate license for frequency use (Frequency Allocation for Unlicensed Applications)**

S.N.	Frequency Band	Frequency Range	Conditions/Requirements	Remarks
1.	2.4 GHz	2.4-2.4835 GHz	<ul style="list-style-type: none"> <li>Maximum Output Power of Transmitter: 1 W (30 dBm)</li> <li>Maximum Effective Isotropic Radiated Power (EIRP): 4 W (36 dBm)</li> </ul>	Unlicensed Band
2.	5 GHz	5.150-5.359 GHz 5.470-5.650 GHz 5.725-5.825 GHz	<ul style="list-style-type: none"> <li>Maximum Output Power of Transmitter: 1 W (30 dBm)</li> <li>Maximum Effective Isotropic Radiated Power (EIRP): 4 W (36 dBm)</li> </ul>	
3.	Machine to Machine (M2M)/ Internet of Things (IoT)	865-868 MHz	<ul style="list-style-type: none"> <li>To separate 865 MHz-868 MHz band for Non-cellular IoT service for now by extending frequency range of 865 MHz -868 MHz band for Non-cellular IoT service,</li> </ul>	

			<ul style="list-style-type: none"> <li>• To use above band in Non-exclusive, Non-protective shared basis,</li> <li>• No frequency fee will be charged on that frequency band.</li> </ul>	
4.	Ultra-Wide Band	6 GHz -8.5 GHz	<ul style="list-style-type: none"> <li>• To use for UWB Technology/Application until another provision in Non-Exclusive and Non-Protective shared basis without interference for telecommunication services,</li> <li>• To open free use of Short Range Application without increasing Maximum Mean EIRP Spectral Density -41.3 dBm/MHz and Peak EIRPP 0 dBm in 50 MHz and that no frequency fee will be charged for that frequency band.</li> </ul>	

Schedule 5

(Related to Sub section 8.1 of Section 8)

**Table 3: Base Price decided for auction of Cellular/Mobile Frequency**

<b>S.N.</b>	<b>Frequency Band</b>	<b>Base Price (Per MHz Per Year in Million NRs)</b>
1	700 MHz	13.5 (Unpaired)
2	800 MHz	13.5 (Unpaired)
3	900 MHz	24 (Unpaired)
4	1800 MHz	18 (Unpaired)
5	2100 MHz	12 (Unpaired)
6	2300 MHz	9
7	2600 MHz	5.5

Schedule 6

(Related to Sub section 8.3 of Section 8)

**(a) Fee of Additional Cellular/Mobile Frequency distributed prior to the Principle of Technology Neutrality**

Table 6.1: Fee for Additional Cellular/Mobile Frequency

<b>S.N.</b>	<b>Frequency Band</b>	<b>Price Per Mega Hertz per Year (Unpaired) in NRs. Million</b>
1	850/900 MHz	6
2	1800 MHz	4

**(b) Fee of Maximum Cellular/Mobile Frequency distributed prior to the Principle of Technology Neutrality**

Table 6.2: Fee for Maximum Cellular/Mobile Frequency

<b>S.N.</b>	<b>Frequency Band</b>	<b>Price Per Mega Hertz per Year (Unpaired) in NRs. Million</b>
1	850/900 MHz	12
2	1800 MHz	8

## Schedule 7

(Related to Sub section 8.4 of Section 8)

### Fee of Microwave Frequency

$$\text{Annual Price per Link or Hop (AP)} = [\text{Basic Price (b)} \times \text{Band Factor (BF)} \times \text{Bandwidth Factor (BwF)} \times \text{Ecosystem Factor (EF)}]$$

Where, **Basic Price (B) = Rs. 10,000/-**

Table 7.1 Band Factor (BF)

<b>Band Factor (BF)</b>	<b>Frequency Range (GHz)</b>
1	0 < Band <=10GHz
0.5	10 < Band <=20GHz
0.3	20 < Band <=30GHz
0.2	30 < Band <=45GHz
0.1	45 < Band <=100GHz
0.05	Band > 100GHz

Table 7.2 Bandwidth Factor (BwF)

<b>Bandwidth Factor (BwF)</b>	<b>Bandwidth (BW) in MHz</b>
1	0 < BW <=10 MHz
2	10 < BW <=20 MHz
3	20 < BW <=30 MHz
4	30 < BW <=40 MHz
5	40 < BW <=50 MHz
6	50 < BW <=60 MHz

7	$60 < BW \leq 70 \text{ MHz}$
8	$70 < BW \leq 80 \text{ MHz}$
9	$80 < BW \leq 100 \text{ MHz}$
10	$BW > 100 \text{ MHz}$

Table 7.3 Ecosystem Factor (EF)

<b>Ecosystem Factor (EF)</b>	<b>Frequency Band (Band) in GHz</b>
1	$0 < \text{Band} \leq 45 \text{ GHz}$
0.1	$45 < \text{Band} \leq 70 \text{ GHz}$
0.4	$70 \text{ GHz} < \text{Band}$

## Schedule 8

(Related to Sub section 8.4 of Section 8)

**Table 8.1: Fee of Satellite (VSAT/Earth Stations) Frequency**

<b>Application</b>	<b>Annual Frequency Fee (Per Terminal) in NRs.</b>
Telecommunications Access within Rural Municipalities	100/-
Other Applications/Areas	1,000/-

**Table 8.2: Frequency Fee for GMPCS**

<b>Application</b>	<b>Annual Frequency Fee (Per MHz) in NRs.</b>
GMPCS	16,000/-