

QUESTIONNAIRE – PART III

For completion by administrations only

Information on the charges and fees to be paid for frequency use

Introduction

Resolution 9 (Rev. Doha, 2006), recognizing the successful development of the "Spectrum Fees Database" (SF Database) in response to Question 21/2 (Istanbul, 2002), now incorporated in Resolution 9, and the availability of guidelines and case studies to assist administrations in extracting information from the SF Database for use in the preparation of fee-calculation models that suit their national requirements, resolves to continue the development of the SF Database and provide additional guidelines and case studies, based on practical experiences of administrations.

To achieve the aims of Resolution 9 (Rev. Doha, 2006), it is necessary, among other things, to update the information contained in the SF Database. Administrations are therefore invited to reply as accurately as possible to the following questionnaire.

Generally speaking, administrations require frequency users to pay two types of fee. In this part of the questionnaire, the term "**administrative charges**" ("taxes administratives" in French and "tasas administrativas" in Spanish) refers to amounts that are charged by administrations to cover their operational costs arising, in particular, from spectrum management and supervision of the licensing regime.

The term "**fees**" ("redevances" in French and "cánones" in Spanish) refers to the frequency usage fees that are levied by administrations in the interests of ensuring optimum use of the spectrum resource.

Part III of the questionnaire has three main sections containing, respectively, questions of a general nature, questions relating to governmental frequency users, and questions relating to non-governmental users.

It also contains two annexes (Annex 1 comprises five charts to be completed by administrations, and Annex 2 contains a glossary).

We should be grateful if administrations would express all financial amounts in Swiss francs.

1 – General questions

Q1

Are there any legal texts on the establishment of charges and fees relating to frequency usage?

Reply:

If yes, please indicate their references and the date on which they were last updated.

Reply:

Q2

What procedure (regulatory, legislative, etc.) is used for reviewing and updating your charge and fee system.

Reply:

Are reviews conducted at pre-established regular intervals? If so, please specify.

Reply:

Does recourse to market mechanisms (auctions, calls for tenders) to screen applicants for spectrum access require that Parliament enact legislation, that the Government make a decision, or any other measure? Please specify.

Reply:

Q3

Spectrum apportionment between users

For the part of the spectrum between 2 900 MHz and 30 GHz, please indicate in the following table the spectrum portion held by each of the specified users in your country:

		% of spectrum held in 2000	% of spectrum held in 2006
Governmental users	Broadcasters (TV and radio)		
	Other entities		
Non-governmental users	Telecommunication operators and users		
	Private broadcasters (TV and radio)		
Total		100%	100%

2 – Questions relating to governmental users

Q4

Do governmental frequency users pay charges and fees?

Yes _____ No _____

If the answer is no, please go direct to Q8. If yes, please reply to Q5, Q6 and Q7.

Q5

Please indicate the scales or calculation formulas that are used for determining charges and fees, specifying whether the charges and fees are payable annually or only once.

Reply:

Q6

Please indicate in the following table the total amounts paid by governmental users:

	Total amount of charges paid			Total amount of fees paid		
	2005	2006	2007	2005	2006	2007
Broadcasters (TV and radio)						
Other users						
Total						

Q7

To which institution(s) are the charges and fees collected from governmental users paid?

Reply:

3 – Questions relating to non-governmental users

Q8

In addition to charges and fees relating to frequency use, does your administration require spectrum redeployment beneficiaries to contribute toward the redeployment costs?

Yes _____ No _____

If yes, please indicate:

- the ways in which these contributions are calculated;
- the applications concerned and the corresponding global amounts.

Reply:

3.1 – Special cases

Q9

Are any applications and/or services (as defined in the Radio Regulations) partially or completely exempted from the payment of charges and fees?

Yes _____ No _____

If yes, please specify:

- the applications and/or services concerned;
- their respective rate of exemption.

Reply:

Q10

Are any end users partially or wholly exempted from the payment of charges and fees?

Yes _____ No _____

If yes, please specify:

- the users concerned;
- their respective rate of exemption.

Reply:

3.2 – Application of charges in general

Q11

How are the charges to be paid by non-governmental users determined? Please indicate whether the charges are to be paid annually or only once.

Reply:

Please indicate in the following table the total amounts paid:

	Total amount of charges paid		
	2005	2006	2007
Telecommunication operators and users			
Private broadcasters (TV and radio)			

3.3 – Application of fees in general

Annex 2 contains a glossary showing the meaning of the expressions used in Part III of the questionnaire.

Administrations are invited to reply to the questions set forth in Charts A to E in Annex 1, dealing respectively with the fixed, mobile, satellite and broadcasting services and other applications.

The charts are set out as follows:

- Horizontally, three sections corresponding to:
 - (rows 1 to 21) the variables which may be used to set the fees and to the methods applied (the shaded cells correspond to non-relevant situations);
 - (row 22) the administration's explanations, grounds and objectives;
 - (rows 23 to 25) recourse to market mechanisms, as the case may be.
- Vertically, the various applications within the service in question.

3.3.1 – Fee-setting methods

Q12

Please complete rows 1 to 21 of the five charts (A to E) in Annex 1 in the following manner.

In each chart, for any given application:

For the variables, please reply:

- yes in the cells relating to the variables you use to set fees;
- no in the cells relating to the variables you do not use;

Q13

Under "Methods used" (rows 20 and 21), please indicate, separately and as applicable, the formulas or scales used to determine the fees in question, including in each case a reference to the corresponding cell.

Please also:

- explain the formulas and scales you use and how they are implemented;
- indicate whether the fees are to be paid annually or only once.

Please specify in the following table the total amounts paid, other than those falling under § 3.3.3 (which relates to auctions and calls for tenders).

	Total amount of fees paid		
	2005	2006	2007
Telecommunication operators and users			
Private broadcasters (TV and radio)			

Example 1

Take Chart A (**fixed** service) and the application "Radio relay". To establish the corresponding fees, if you use the variables "bandwidth", "centre frequency", "number of transmitting stations" and "duration of authorization/licence", you should reply "yes" in the cells situated at the intersection of rows 1, 2, 10 and 13 with the column "Radio relay". In all other cells in that column, you should reply "no".

To determine the amount of the fees:

- If you use the following formula:
"Annual fee for a link = $100 \times Df/fc$ ",
where Df = bandwidth and fc = centre frequency,
you could reply as follows:
"A201: Annual charge for a link = $100 \times Df/fc$ "
- If you use no formula, you should append the corresponding scale under reference A211.

3.3.2 – Explanations, grounds and objectives (row 22 in the charts)

Q14

For each of the cells in row 22, you are invited to provide information on the grounds for your choice of the variables used to set the fees and of the methods applied to determine the amount of those fees.

Example 2

Following on from example 1, you could reply as follows:

"A231:

- the variable "bandwidth" was chosen to encourage economical use of the spectrum;
- the variable "centre frequency" was chosen to encourage the use of high frequencies;
- the variable "number of transmitting stations" was chosen to take account of spectrum and geographic occupancy;
- the variable "duration of authorization" was chosen in order to enable collection of a global amount corresponding to the total length of time the spectrum is occupied. It also reduces the risk of frequency hoarding and non-use."

3.3.3 "Recourse to market mechanisms" section

Q15

For each instance of recourse to market mechanisms, please specify:

- the application in question (GSM, IMT-2000, radio local loop, etc.) and year of operation;
- the procedure followed: auctions (row 23), call for tenders (row 24) or comparative selection (beauty contests) (row 25);
- the total financial amount collected and total bandwidth allocated (or total number of licences granted).

Reply:

3.3.4 Advantages and disadvantages of each approach

Q16

What are the advantages and disadvantages of the approaches currently used by your administration to establish the amount of frequency fees?

Reply:

3.4 – Financial flows

Q17

To which institution(s) are the frequency charges and fees collected from non-governmental users paid?

Reply:

4 – Updates

Q18

How often would you consider it most appropriate to update the report and the SF Database on frequency charges and fees: every two, three, four, ... years?

Reply:

To that end, would you be willing hereafter to complete a similar questionnaire at the regular interval you have indicated above?

Reply:

Annex 1

Chart A: FIXED service

↓ VARIABLES	APPLICATIONS →	Row No.	Radio relay	Local radio loop WiMAX, ... <i>(please specify)</i>	Links between fixed stations (including HF)	Local WiFi networks	Other application(s) <i>(please specify)</i>
<i>Spectrum-related variables</i>	bandwidth	<i>1</i>					
	number of channels	<i>1bis</i>					
	centre frequency, or band position in the spectrum	<i>2</i>					
	exclusive / shared use	<i>3</i>					
<i>Variables relating to geographic coverage</i>	surface area allocated	<i>4</i>					
	distance between transmitter and receiver	<i>5</i>					
<i>Variables relating to equipment and infrastructure</i>	transmitter power	<i>6</i>					
	antenna height	<i>7</i>					
	bit rate or capacity	<i>8</i>					
	transmitting beam angle	<i>9</i>					
	number of transmitting stations	<i>10</i>					
	number of receiving stations	<i>11</i>					
	degressivity	<i>12</i>					

<i>Socio-economic variables</i>	duration of the authorization/licence	13					
	population density	14					
	total population covered	15					
	geographic location	16					
	operator's turnover	17					
	gross domestic product	18					
<i>Other variable(s) (please specify)</i>		19					
<i>Methods used</i>	calculation formulas and corresponding amounts	20	A201	A202	A203	A204	A205
	scales	21	A211	A212	A213	A214	A215
<i>Explanations, grounds and objectives</i>		22	A221	A222	A223	A224	A225
<i>Recourse to market mechanisms</i>	auctions	23	A231	A232	A233		A235
	call for tenders	24	A241	A242	A243		A245
	comparative selection (beauty contests)	25	A251	A252	A253		A255

Chart B: MOBILE service

↓ VARIABLES	APPLICATIONS →	Row No.	2G mobile systems	3G mobile systems	Radio-messaging	Private independent networks	Operated independent networks	Citizen band (CB)	RRI 446 (or family radio)	Other application(s) <i>(please specify)</i>
<i>Spectrum-related variables</i>	bandwidth	<i>1</i>								
	centre frequency, or band position in the spectrum	<i>2</i>								
	exclusive / shared use	<i>3</i>								
<i>Variables relating to geographic coverage</i>	surface area allocated	<i>4</i>								
	distance between transmitter and receiver	<i>5</i>								
<i>Variables relating to equipment and infrastructure</i>	transmitter power	<i>6</i>								
	antenna height	<i>7</i>								
	bit rate or capacity	<i>8</i>								
	transmitting beam angle	<i>9</i>								
	number of transmitting stations	<i>10</i>								
	number of receiving stations	<i>11</i>								
	degressivity	<i>12</i>								

Socio-economic variables	duration of the authorization/licence	13								
	population density	14								
	total population covered	15								
	geographic location	16								
	operator's turnover	17								
	gross domestic product	18								
Other variable(s) (please specify)		19								
Methods used	calculation formulas and corresponding amounts	20	B201	B202	B203	B204	B205	B206	B207	B208
	scales	21	B211	B212	B213	B214	B215	B216	B217	B218
Explanations, grounds and objectives										
		22	B221	B222	B223	B224	B225	B226	B227	B228
Recourse to market mechanisms	auctions	23	B231	B232	B233	B234	B235			B238
	call for tenders	24	B241	B242	B243	B244	B245			B248
	comparative selection (beauty contests)	25	B251	B252	B253	B254	B255			B258

Chart C: SATELLITE service

↓ VARIABLES	APPLICATIONS →	Row No.	VSAT	Earth stations	Satellite video reporting	Mobile satellite service	Satellite radiolocation	Other application(s) <i>(please specify)</i>
<i>Spectrum-related variables</i>	bandwidth	1						
	number of channels	1bis						
	centre frequency, or band position in the spectrum	2						
	exclusive / shared use	3						
<i>Variables relating to geographic coverage</i>	surface area allocated	4						
	distance between transmitter and receiver	5						
<i>Variables relating to equipment and infrastructure</i>	transmitter power	6						
	antenna diameter	7						
	bit rate or capacity	8						
	transmitting beam angle	9						
	number of transmitting stations	10						
	number of receiving stations	11						
	degressivity	12						

<i>Socio-economic variables</i>	duration of authorization/licence	13						
	population density	14						
	total population covered	15						
	geographic location	16						
	operator's turnover	17						
	gross domestic product	18						
<i>Other variables (please specify)</i>		19						
<i>Methods used</i>	calculation formulas and corresponding amounts	20	C201	C202	C203	C204	C205	C206
	scales	21	C211	C212	C213	C214	C215	C216
<i>Explanations, grounds and objectives</i>		22	C221	C222	C223	C224	C225	C226
<i>Recourse to market mechanisms</i>	auctions	23	C231	C232	C233	C234	C235	C236
	call for tenders	24	C241	C242	C243	C244	C245	C246
	comparative selection (beauty contests)	25	C251	C252	C253	C254	C255	C256

<i>Socio-economic variables</i>	duration of authorization/licence	13								
	population density	14								
	total population covered	15								
	geographic location	16								
	operator's turnover	17								
	gross domestic product	18								
<i>Other variable(s) (please specify)</i>		19								
<i>Methods used</i>	calculation formulas and corresponding amounts	20	D201	D202	D203	D204	D205	D206	D207	D208
	scales	21	D211	D212	D213	D214	D215	D216	D217	D218
<i>Explanations, grounds and objectives</i>		22	D221	D222	D223	D224	D225	D226	D227	D228
<i>Recourse to market mechanisms</i>	auctions	23	D231	D232	D233	D234	D235	D236	D237	D238
	call for tenders	24	D241	D242	D243	D244	D245	D246	D247	D248
	comparative selection (beauty contests)	25	D251	D252	D253	D254	D255	D256	D257	D258

Chart E: other applications

↓ <i>VARIABLES</i>	APPLICATIONS →	Row No.	Amateur radio	Ultra wideband applications such as in-vehicle radar <i>(please specify)</i>	Low-range, low-power devices	Radio-navigation	Radio-location	Weather service	Other application(s) <i>(please specify)</i>
<i>Spectrum-related variables</i>	bandwidth	1							
	centre frequency, or band position in the spectrum	2							
	exclusive / shared use	3							
<i>Variables relating to geographic coverage</i>	surface area allocated	4							
	distance between transmitter and receiver	5							
<i>Variables relating to equipment and infrastructure</i>	transmitter power	6							
	antenna height	7							
	bit rate or capacity	8							
	transmitting beam angle	9							
	number of transmitting stations	10							
	number of receiving stations	11							
	degressivity	12							

Socio-economic variables	duration of authorization/licence	13								
	population density	14								
	total population covered	15								
	geographic location	16								
	operator's turnover	17								
	gross domestic product	18								
Other variable(s) (please specify)		19								
Methods used	calculation formulas and corresponding amounts	20	E201	E202	E203	E204	E205	E206	E207	
	scales	21	E211	E212	E213	E214	E215	E216	E217	
Explanations, grounds and objectives			22	E221	E222	E223	E224	E225	E226	E227
Recourse to market mechanisms	auctions	23				E234	E235	E236	E237	
	call for tenders	24				E244	E245	E246	E247	
	comparative selection (beauty contests)	25				E254	E255	E256	E257	

Annex 2

GLOSSARY

Term	Meaning
Exclusive/shared use	The utilization of a frequency band is "exclusive" when the beneficiary of the authorization is the only one to use that band. If several users utilize the same band, utilization is "shared".
Surface area allocated	Area within which the beneficiary of the authorization is authorized to use the frequency/frequencies allocated to it. Example: the surface area allocated may be the entire national territory or only a part thereof.
Degressivity	An organization that uses n units of equipment (or n frequencies) benefits from "degressivity" in the fees due when the total fees it has to pay in respect of the n units of equipment (or n frequencies) is less than the product of: $[n] \times [\text{amount of the fees relating to one unit of equipment (or to one frequency)}]$.
Duration of authorization/licence	The period during which the beneficiary of the authorization is authorized to use the frequency/frequencies it has been allocated. Example: generally speaking, authorizations are valid for several years, although temporary authorizations, covering a period of months or less, may also be granted.
Population density	Density relative to surface area allocated.
Population covered	Number of inhabitants in the surface area allocated.
Operator's turnover	For a given application, generally the annual turnover obtained by the operator from the frequencies it has been allocated for that application. Example: annual turnover obtained by a 2G mobile service operator.
Gross domestic product (GDP)	GDP of the economic agents (State, firms and households) within the surface area allocated. The higher the GDP, the greater the potential turnover obtained from the commercial use of frequencies in the surface area allocated is likely to be.
Geographic location	Location of the surface area allocated within the national territory. To take an extreme example, in a given country, the turnover that can potentially be derived from the commercial use of frequencies in and around the economic capital is greater than that which could be obtained in a desert area.
Auctions	In an auction, once the applicants have qualified, the price they bid (which corresponds to the fees for spectrum access and use of the frequencies) is the <u>only</u> criteria used in their selection.
Call for tenders	In bidding of this kind, the applicants' price bid (which corresponds to the fees for spectrum access and use of the frequencies) is just one of several selection criteria used (see below).
Comparative selection (beauty contest)	In bidding of this kind, the applicants are screened on the basis of various possible criteria (but not price), such as aptitudes and capacities, technical and business plans, proposed tariffs, commitment to covering the territory, availability and quality of service, etc. Where spectrum access and frequency use are subject to a fee, the amount of that fee is not open to bidding by the applicants but rather imposed by the authorities.

Administrative charges	<p>The fees that are charged by administrations to cover their costs arising, in particular, from spectrum management and supervision of the licensing regime.</p> <p>These costs may also cover expenditure in respect of international cooperation, harmonization and standardization, market analyses, verification of conformity, other market-related verification, and regulatory activities.</p>
Fees	<p>The frequency usage fees that are levied by administrations in the interests of ensuring optimum use of the spectrum resource.</p> <p>In addition, since the frequency spectrum belongs to the State, the fee-setting arrangements may also be geared towards achievement of the objectives sought through effective national spectrum management.</p>
