

QUESTIONNAIRE ON SPECTRUM REQUIREMENTS FOR TERRESTRIAL TELEVISION BROADCASTING IN CONNECTION WITH WRC-15 AGENDA ITEM 1.2

This questionnaire can be completed online at the following web page:

<https://extranet.itu.int/rsg-meetings/sg6/wp6a/Lists/DTTB%20Questionnaire/overview.aspx>

Login as: **Username:** (your TIES username)@ties.itu.int
Password: (your TIES password)

NOTE - Electronic versions of Annexes 1, 2 & 2 can be found under QUESTIONNAIRE in the WP 6A Share Folder on the WP 6A Sharepoint site.

Name of the Administration/Sector Member: Ministry of Communication and Information Technologies of the Republic of Azerbaijan

For sector members please indicate the geographical area over which you operate:

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- 1
- What standards have you adopted for digital terrestrial television broadcasting?
 - Have you started introduction of digital terrestrial television services?
 - If yes, please provide further detail on the number of multiplexes in use, their technical specifications, the percentage of geographic area or population they are intended to cover and the total spectrum use to inform WP 6A.

A proposed format for detailed responses is provided in Annex 1.

Reply:

- DVB-T MPEG-4**
- Yes**
- See annex 1**

- 2
- Have you commenced analogue television switch-off?
 - If you have any such plans, when do you expect to have completed the analogue switch-off process?

Reply:

- Yes**
- End of 2013**

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- 3 a) What is the percentage of viewer uptake of terrestrial television in your country, including those whose service provider uses terrestrial broadcast re-transmission (e.g. in cable networks)?
- b) If possible, please also provide details of the number or proportion of users who receive television primarily by terrestrial means.

Reply:

- a) **99.9%**
- b) **99.9%**

- 4 a) Indicate how many analogue television transmitters use channels in the frequency sub-band 694-790 MHz (as indicated in Resolution **232 (WRC-12)**).
- b) How many are in the remaining part of the UHF band.

Reply:

- a) **57**
- b) **176**

- 5 a) What frequencies/channels are currently used or intended to be used by digital terrestrial television broadcasting in your country? Please distinguish between those in use and those intended to be used.
- b) If allotments/SFNs are in use, a sketch map of frequency allocations could be included, with an accompanying table of allocations, as shown in Annex 2. Otherwise, it might be possible to show main transmitters and channels, grouped in layers, in a table.
- c) Please indicate how many digital television assignments/allotments use channels in the frequency sub-band 694-790 MHz (as indicated in Resolution **232 (WRC-12)**), and
- d) How many are in the remaining part of the UHF band.

Reply:

- a) **Frequencies provided in Geneva-06 are currently used and intended to be used by digital terrestrial television broadcasting**
- c) **107**
- d) **298**

- 6 a) Are those frequency bands also shared with other primary services?
- b) If yes, please give details of those systems and their spectrum use.

Reply:

- a) **No**

- 7 a) Are those frequency bands also shared with secondary services such as PMSE (Programme Making and Special Events), radio astronomy or wind-profile radar?

- b) If yes, please give details of those systems and their spectrum use.

Reply:

- a) **The frequency band 470-790 MHz is also available for PMSE (Radio microphones).**

- 8 a) Do you foresee the adoption or expansion of television services broadcast using second-generation systems such as DVB-T2?
b) If yes, please give indicative details of the planned transition, including any simulcast period.

Reply:

- a) **Is considered**

- 9 a) Do you foresee a requirement for new and enhanced services, including HD and 3D television, on the terrestrial television platform?
b) If yes, please give indicative details of the number and nature of services planned, and if known, the expected timeframe for their introduction.

Reply:

- a) **We plan to use HD television on the terrestrial television platform.**

- 10 a) Are there plans in your country to launch more multiplexes in the future?
b) If yes, how many more and when? Please also indicate the expected timeframe for their introduction.

Reply:

- a) **Yes**
b) **8-10 multiplexes, 2013**

- 11 a) What is the amount of spectrum you foresee that will be required for terrestrial television broadcasting, if plans in Questions 8, 9 and 10 are to be supported, and services identified in Questions 6 and 7 are to be taken into account? Please indicate the modes of transmission that will be used, and timeframes.
If appropriate, a suggested form to express these requirements is shown in Annex 3.

Reply:

- a) **See annex 3**

ANNEX 1

Suggested form of presentation of reply to Question 1: *What standards have you adopted for digital terrestrial television broadcasting? Have you started introduction of digital terrestrial television services? If yes, provide further detail on the number of multiplexes in use, their technical specifications, the percentage of geographic area or population they are intended to cover and the total spectrum use.*

A sample response is shown for guidance only.

Country	No of multiplexes	System & modulation	FEC	GI	Reception mode ¹	Capacity per multiplex (Mb/s)	Current percentage population coverage	Intended percentage population coverage	Content per multiplex	Total capacity (Mb/s)	Total spectrum bandwidth used or intended for implementation (MHz) ²	Any additional comments (e.g. duration of licences)
AZE	1	DVB-T, 64-QAM	2/3	1/8	Fixed	22.0	88.0%	99.9%	10 SD MPEG4	132 Mb/s plus (tbc)	320 Mhs	Multiplex with social and national programmes
	1	DVB-T, 64-QAM	2/3	1/8	Fixed	22.0	10.0%	70.0%	8 SD MPEG4			Multiplex with regional programmes
	4	DVB-T, 64-QAM	2/3	1/8	Fixed	22.0	15.0%	60.0%	40 SD MPEG4			Programmes of private tele-radio companies
	[tbc]	[DVB-T/T2, tbc]	[tbc]	[tbc]	Fixed	[tbc]	-	80.0%	[tbc]			Programmes of private tele-radio companies

ANNEX 3

Suggested form of presentation of reply to Question 11: *What is the minimum amount of spectrum you foresee that will be required for digital terrestrial television broadcasting in Bands IV & V, if plans in Questions 8, 9 and 10 are to be supported, and services identified in Questions 6 and 7 are to be taken into account? Please indicate the modes of transmission that will be used, and timeframes.*

Country	No of multiplexes	System & modulation	FEC	GI	Reception mode ³	Capacity per multiplex (Mb/s)	Intended percentage population coverage	Content per multiplex	Total capacity (Mb/s)	Total spectrum bandwidth needed (MHz) ⁴	Any additional comments including time frames
AZE	1	DVB-T, 64-QAM	2/3	1/8	Fixed	22.0	99.9%	10 SD MPEG4	176 Mb/s+ [tbc]	320Mhs	Exists (88.0%)
	1	DVB-T, 64-QAM	1/2	1/8	Fixed	22.0	70%	8 SD MPEG4			Exists (10.0%)
	6	DVB-T, 64-QAM	2/3	1/4	Portable indoor	22.0	60%	60 SD MPEG4			4 exist, 2 from 01.05.2013
	[tbc]	[DVB-T/T2, tbc]	[tbc]	[tbc]	Fixed	[tbc]	80.0%	[tbc]			From 01.10.2013