



## 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:** **United Arab Emirates**

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

**Contact person:** **Sultan AlBalooshi**

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- 1
- a) What standards have you adopted for digital terrestrial television broadcasting?
  - b) Have you started introduction of digital terrestrial television services?
  - c) 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-T2 has been adopted for terrestrial broadcasting. The transmission for terrestrial digital TV has not been started yet. Details are at Annex-1.**

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

**Reply:** **a) Yes**

**b) A national plan for analog TV switch-off has been approved and maximum date for switch off is December 2013.**

- 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)?

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- b) If possible, please also provide details of the number or proportion of users who receive television primarily by terrestrial means.

**Reply:**     **a) Not Applicable as digital terrestrial TV service not launched yet.**  
              **b) Less than 3%**

- 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) 6 Transmitters and shall be switched off by end of 2013 and this frequency sub-band 694-790 MHz will not be used for digital broadcasting.**  
              **b) 23 Transmitters**

- 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:**     **Details for planned digital transmissions comprising initially three muxes is available at Annex-2.**

- 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. Either the 694-790 MHz sub-band is used for broadcasting or Mobile but no sharing.**

- 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) Yes, Program Making and Special Events. Currently the band where available is used for PMSE applications.**  
              **b) PMSE, mostly for Audio Applications e.g. Wireless Mic, IFB, IEM etc**

- 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) Direct launch of DVB-T2. No deployment of DVB-T**

- 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) Yes, in the bands which will be used primarily for Broadcasting.**  
**b) Not decided yet.**

- 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) Approximately 3 more multiplexes in 470-694 MHz band subject to future uptake of terrestrial TV broadcast. No timeframe decided yet.**

- 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) Approximately 12 Channels in the band 4700-694 MHz.**

## ANNEX 1

Initial Plan for deployment of digital terrestrial TV broadcasting services.

| Country | No of multiplexes | System & modulation | FEC | GI   | Reception mode <sup>1</sup> | 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) <sup>2</sup> | Any additional comments (e.g. duration of licences) |
|---------|-------------------|---------------------|-----|------|-----------------------------|-------------------------------|--|---|-----------------------|-----------------------|---|---|
| UAE     | 3                 | DVB-T2              | 2/3 | 1/16 | Fixed                       | ≈36.97                        | 0%                                     | ≈99%                                    | HD + SD<br>MPEG4      | ≈110                  | 120   | -----   |

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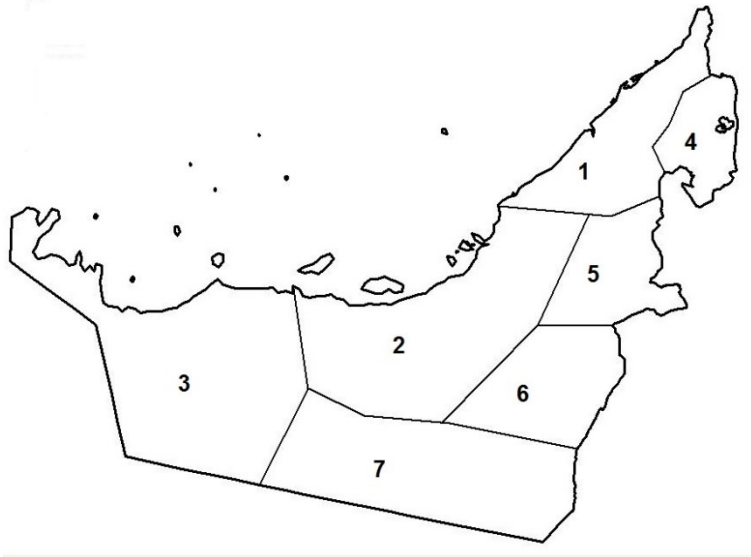
<sup>1</sup> E.g. fixed, portable outdoor/mobile, portable indoor.

<sup>2</sup> Refer Sections 2 and 3 on page 1 of this circular.

## ANNEX 2

Presentation of reply to Question 5:

No channel is used for digital planning in 694-790 MHz.



| Area | Layer 1 | Layer 2 | Layer 3 |
|------|---------|---------|---------|
| 1    | 37      | 21      | 24      |
| 2    | 48      | 31      | 29      |
| 3    | 27      | 35      | 45      |
| 4    | 38      | 27      | 31      |
| 5    | 40      | 21      | 44      |
| 6    | 39      | 21      | 24      |
| 7    | 25      | 22      | 29      |