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**Government of India**  
**Ministry of Information & Broadcasting**  
**'A' Wing Shastri Bhawan, New Delhi-110001**

Dated: 11<sup>th</sup> September, 2019

**OFFICE MEMORANDUM**

**Subject: Accessibility Standards for Persons with Disabilities in Television Programmes-regarding.**

In line with the provisions made under Section 29(h) and Section 40 of 'THE RIGHTS OF PERSONS WITH DISABILITIES ACT, 2016', **Accessibility Standards for Persons with Disabilities in Television Programmes** are issued.

2. All concerned to note and take immediate necessary action to implement the Accessibility Standards as per timelines indicated therein.

Encl: As above



**(P. Nagarajan)**

Under Secretary to the Govt. of India

Phone: 23386746

To

1. CEO, Prasar Bharati.
2. Director General, Doordarshan.
3. Director General (News), Doordarshan.
4. All DTH/HITS/IPTV/MSOs Operators.
5. Secretary General, Indian Broadcasting Foundation, B-304, Ansal Plaza, Khelgaon Marg, New Delhi-110049.
6. Secretary General, News Broadcasters Association, Mantec House, C-56/5, 2<sup>nd</sup> Floor, Sector 62, Noida-201301.

Copy for information to:

1. Chief Commissioner for Persons with Disabilities, Sarojini House, 6 Bhawan Dass Road, New Delhi-110001.
2. Director, Ali Yavar Jung National Institute of Speech and Hearing Disabilities (Divyangjan), K.C. Marg, Bandra (W) Reclamation, Mumbai-400050.
3. Executive Director, National Centre for Promotion of Employment for Disabled People, E-150, Ground Floor, East of Kailash, New Delhi-110065.
4. Shri A.S. Narayanan, President, National Association of the Deaf, #102, 19A, Vishal Complex, Opp. Una Enclave, Mayur Vihar, Phase-I, Delhi-110091.
5. Sh. Vikash Prasad, Director, Department of Empowerment of Persons with Disabilities, 5<sup>th</sup> Floor, Antyodaya Bhawan, CGO Complex, New Delhi.

Copy also to:

1. PS to HMIB
2. Sr. PPS to Secretary (I&B)
3. PPS to Additional Secretary (I&B)
4. PPS to Joint Secretary (B-I)/(EW)
5. PPS to Joint Secretary (B-II)
6. PPS to Joint Secretary (P&A)
7. PS to Economic Advisor
8. PA to Director (BP&L)
9. PA to Director (BC)
10. DS (DAS)
11. DS (BAP)
12. NIC to upload on the website of Ministry



**(P. Nagarajan)**

Under Secretary to the Govt. of India

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# **ACCESSIBILITY STANDARDS FOR PERSONS WITH DISABILITIES IN TELEVISION PROGRAMMES**



सत्यमेव जयते

**Government of India  
Ministry of Information and Broadcasting  
Shastri Bhawan, New Delhi**

**September, 2019**

## PREAMBLE

**Whereas** Constitution of India guarantees various kinds of Fundamental Rights to all its citizens irrespective of their religion, race, caste, sex, or place of birth. Article 14 of the Constitution of India provides for Right to Equality before the law. It further states that the State shall not deny to any person equality before the law or the equal protection of the laws within the territory of India.

**Whereas** Persons with Disabilities also have similar and equal rights in the eyes of the Constitution.

**Whereas** India is a signatory to the United Nations Convention on the Rights of Persons with Disabilities ("the CRPD" or "the Convention"), which came into force in May 2008. This Convention recognizes accessibility as a human right and requires signatories to adopt appropriate measures to ensure access by persons with disabilities to information and communication technology, emergency services and internet services on an equal basis with others.

**Whereas** in December 2015, the Government of India launched 'The Accessible India Campaign' also known as the 'Sugamya Bharat Abhiyan' to enable persons with disabilities to gain universal access, equal opportunity for development, independent living, and participation in all aspects of life. The campaign seeks to enhance accessibility by making significant changes to the infrastructure, information and communication systems.

**Whereas** Government of India also enacted The Rights of Persons with Disabilities Act, 2016 (The Act), which is the principal and comprehensive legislation concerning persons with disabilities. The Act defines the responsibilities of the Central and State governments with regard to the services for persons with disabilities. The Act also recommends creating a barrier-free environment by removing all type of discrimination against persons with disabilities where they can share the development benefits which a normal person enjoys.

**Whereas** the Section 29(h) of The Act requires television to be accessible for persons with hearing impairment.

**Whereas** keeping in view the provisions of Rights of Persons with Disabilities Act, 2016, Ministry of Information & Broadcasting, on 27<sup>th</sup> September, 2017 constituted a Committee of Experts and Stakeholders to formulate Accessibility Standards for Persons with Disabilities. The mandate of the Committee was to deal with Standards of TV viewing accessible to persons with hearing impairment. In its first meeting held on 9<sup>th</sup> October, 2017, the Committee decided to form a Sub-Group

under the Chairpersonship of Director General, Doordarshan for formulation of Accessibility Standards to facilitate accessibility of TV programmes for persons with hearing impairment keeping in view the provisions of the Act.

**Whereas** the Sub-Group held wide ranging consultation with Broadcasters, Disability Groups and other stakeholders concerned. The Sub-Group submitted its report to the Ministry on 4<sup>th</sup> December, 2018.

The report of the Sub-Group has been examined by the Ministry of Information & Broadcasting in consultation with the members of Committee of Experts and Stakeholders. Based on the recommendations made by the Sub-Group and the Committee and after stakeholders' consultation on 10<sup>th</sup> June, 2019, under the Chairpersonship of Secretary of Ministry of Information and Broadcasting, the Ministry has formulated Accessibility Standards in Television Programmes for persons with hearing impairment.

# Accessibility Standards for Television Programmes for Hearing Impaired

## 1. OBJECTIVES

The objective of this policy is to formulate and lay down Accessibility Standards for TV programmes for persons with hearing impairment.

## 2. DEFINITIONS

**"Hearing Impairment"** has the same meaning as defined in the Rights of Persons with Disabilities Act, 2016, which is as under:

### **Hearing Impairment—**

- (a) "deaf" means persons having 70 DB hearing loss in speech frequencies in both ears; and
- (b) "hard of hearing" means person having 60 DB to 70 DB hearing loss in speech frequencies in both ears.

**"Access service"** means a service such as sub-titles/closed captioning/ signing (Indian Sign Language interpretation) that improves the accessibility of a television programmes /audio-video content for hearing impaired.

**"Closed captioning"** is the means by which both the audio dialogue and sound representations of an audio-video content are made visible via on-screen text that is synchronized with the audio content on demand by the user.

**"News Captioning"** means display of headlines or summary of key developments on News and Current Affairs Channels by way of scrolls or static text, irrespective of whether such news captioning is verbatim transcription of what is being displayed on Television screen.

**"Electronic Programme Guide" (EPG)** is an application to list current and scheduled programmes that are or will be available on a particular channel, a short summary or commentary for each programme and programme information. EPG is the electronic equivalent of a printed television programme guide.

**"Programme Information"** means an indication of which video programmes are accompanied by internationally recognized access service icons such as the following upper-case letters – closed captioning

(CC), subtitling for the deaf and hard of hearing (SDH) and Indian Sign language interpretation (ISL).

**"Service Provider"** refers to the entity responsible for creating/delivering television programming, including broadcasters which are licensed by the Ministry of Information and Broadcasting and distributors, namely, cable and satellite network operators and service providers irrespective of whether licensed by the Ministry of Information and Broadcasting or not.

**"Open Captioning"** is captioning whereby the user does not have to do anything in order to see captions for the hearing impaired, as these are an integral part of the picture and cannot be turned off.

**"Sub-titling"** is captioning of dialogues whereby the user does not have to do anything in order to see such sub-titles for the hearing impaired, as these are an integral part of the picture and cannot be turned off.

**"Signing (or Sign Language)"** is communication using sign language. A sign language (also signed language) is a language, which, instead of acoustically conveyed sound patterns, uses visually transmitted sign patterns (manual communication, body language) to convey meaning—simultaneously combining hand shapes, orientation and movement of the hands, arms or body, and facial expressions to fluidly express a speaker's thoughts.

**"Sign Language Interpretation"** is a sign language of the programme audio (speech and other sounds) for viewers who are hearing impaired and use sign language. Sign languages typically use hand shapes, movement, body language and facial expressions to convey meaning. Whenever reference is made to 'sign language' in the Indian context, it will refer to a variant of it called 'Indian Sign Language' (ISL).

**"Television broadcasting"** means the transmission of a television channel, whether analogue or digital, by wire or over the air, in un-encoded or encoded form, of television programming and electronic programme guides or both intended for reception by the public.

**"Emergency Services & Information"** means the public communications, public service messages, alerts and announcements in situations of disasters and emergencies.

**"Television programming"** means all types of transmitted audio-video content meant for television broadcasting provided or distributed by a service provider, including broadcasters, cable, satellite, and the retransmission of their television programmes on the Internet, intended for reception by the public.

“**Ministry**” in the context of this policy means the Ministry of Information & Broadcasting, Government of India.

### **3. AWARENESS AND CUSTOMER SERVICE**

- 3.1 The Government and the service providers would take steps to ensure that the public is aware of television programmes accessibility requirements, the measures that have been put in place to promote accessibility, and their rights in terms of the relevant legislation and regulations.
- 3.2 All the service providers will take effective steps to publicize and create awareness of the accessibility of their television programmes including through periodic announcements on their own channels and other services, advertising accessible programmes on Electronic Programme Guides, printed programme guides and providing information in publications aimed at persons likely to benefit from accessible television.
- 3.3 All the concerned ‘service providers’ should train their customer service staff how to deal with and serve customers with hearing impairment, and guide such customers appropriately as to how to use and customize available access services and EPG, etc.
- 3.4 All the concerned ‘service providers’ will designate a single point-of-contact for information and complaints about accessibility issues. This designated point of contact should be publicized by the broadcaster and publicity about such point of contact must be made accessible to persons with hearing impairment.
- 3.5 Standardized or generally known and accepted language and symbols should be used to disseminate information to public about the channels and programmes that are accessible. The symbols used should be widely disseminated in public communications and should be explained in an appropriate part of the EPG.

### **4. TELEVISION PROGRAMMES ACCESS**

- 4.1 Service Providers are required to deliver sub-titles/closed captioning/ sign language across specified television programmes in order to ensure access by hearing impaired to such television programmes. However, it shall be at the discretion of the Service Provider/broadcaster to choose any one or more option from “Closed Captioning, Subtitles, Open Captioning and/or Sign Language” as will be most suited to the format of the programme and requirement of the viewers.

- 4.2 The Ministry may mandate the above accessibility measures through regulations, licence conditions, accessibility targets and codes of good practice, and other relevant measures.
- 4.3 The Ministry in consultation with stakeholders, may also lay guidelines to ensure the interoperability of television services and equipment enabling users to receive, decode and display access services for hearing impaired persons.
- 4.4 Audio-video content creators and owners are responsible for creating the content for these services and delivering that content to the concerned Service Provider. This policy recognizes the complexity of the audio-video content value chain and therefore encourages service providers to promote, through their content acquisition, programming and editorial policies, the delivery of access services as part of television programmes/ audio-video content producers' packages.
- 4.5 Service Providers are required to deliver closed captions where technically feasible and allow the viewers to choose when to use them.
- 4.6 Sub-titles or open captioning or closed captioning must be provided in the language of the channel or such language as may be deemed feasible by broadcaster (depending on factors such as target audience, target region etc.) .
- 4.7 Where Sign Language Interpretation is provided, Service Providers should be encouraged to provide it in a manner that the viewer can see not only the hands but also, where applicable, the facial expressions of the signer. The image of the signer superimposed upon the original programme should generally appear on the right hand of the screen and occupy a space no smaller than one sixth of the picture.
- 4.8 Service Providers should monitor the effectiveness of the service through regular contact with organizations representing people who are hearing impaired.
- 4.9 Foreign language television programmes should have close captions in English and/or any Indian language.

## **5. FUNDING**

Adequate funding may be ensured by Prasar Bharati to public television broadcaster i.e. Doordarshan to provide a high quality service to meet the needs of hearing impaired persons.

## 6. EXEMPTIONS

6.1 TV Channels achieving an average audience share of all households over a 12 month period of less than 1% are excluded from providing the accessible services set out in this policy.

A broadcaster shall have three (3) months' time for implementation of Accessibility Standards once the above threshold is crossed by a relevant channel so as to enable relevant Broadcasters to comply with the same.

### 6.2 Exempted Content

The following formats of content may be exempted from complying with Access Service due to the very nature of the content:

- Live and deferred live content/events such as sports
- Live news, events like live music shows, award shows, live reality shows, etc.
- Content like music shows, debates, scripted/ unscripted reality shows, etc.
- Advertisements/ teleshopping content

## 7. TARGETS AND REPORTING REQUIREMENTS:

7.1 The Ministry would establish, in consultation with associations/ organizations of persons with hearing impairment, Service Providers of audio-video content and other relevant stakeholders, measurable targets to be implemented by Service providers.

7.2 Sample measurable targets include:

- a) Percentage of television programmes/audio-video content, by type of television programmes/audio-video content, that offers different access services, including closed captioning and Sign Language Interpretation.
- b) Steps taken by Service Providers to publicize and create awareness of the accessibility of their television programmes.
- c) EPGs using internationally recognized icons to indicate type of access service provided.
- d) Emergency broadcasts in accessible formats.
- e) Quality of service standards for accuracy and synchronization of closed captioning and audio description established.

## **8. ACCESSIBILITY STANDARDS**

### **8.1 Television & Set Top Boxes**

Details are given in the schedule.

- (i) Television & Set Top boxes should provide easy options to access the captions, sub-titles and/or sign language interpretation.
- (ii) Television, set top box and remote controls must ensure that key controls are easily distinguished and identifiable.

### **8.2 Captioning Guidelines**

The details are in the schedule.

- (i) The captioning should be accurate, synchronized, complete and free from errors of spelling and grammar.
- (ii) Position of captioning, case, italics and underlining, color and font should be such as it is easily visible/ readable for hearing impaired.

### **8.3 Sign Language Guidelines**

The details are in the schedule.

- (i) Sign Language interpretation must be provided in a picture-in-picture mode and it must be accurate and convey clear message to the hearing impaired.

### **8.4 Online/ Internet TV/Television programmes through Internet**

The accessibility standards defined and prescribed for TV programmes being broadcast through traditional hardware would apply '*mutatis mutandis*' on the same Television programmes shown through Internet platforms.

## **9. EQUIPMENT**

The details are in the schedule.

9.1 End-user equipment must support access services.

9.2 Service Providers and manufacturers of consumer equipment to access the audio-visual content to ensure that viewers who are hearing impaired and use hearing aids, are able to hear the programme with hearing aid.

## **10. ELECTRONIC PROGRAMME GUIDES (EPGs)**

The details are in the schedule.

- 10.1 Service Providers to ensure that the programme synopsis in the EPG indicates which programmes are accompanied by access services using the internationally recognized access service icons and symbols.
- 10.2 If non-standard terms are used in any part of the EPG, the removal or replacement by the standard abbreviations should be done at the next reasonable opportunity.
- 10.3 Service Providers should ensure that they provide accurate and timely information to EPG and other TV programme listing providers about television access services.
- 10.4 Service Providers should ensure EPGs provide information about assistance in relation to programmes.
- 10.5 Service Providers should provide an easily accessible part of the EPG or alternatively in other accessible ways information for hearing impaired.

## **11. EMERGENCY SERVICES & INFORMATION**

- 11.1 It is the responsibility of the Government, the Service Providers and public bodies with responsibility for emergency services to create awareness about the availability and accessibility of emergency services by hearing impaired.
- 11.2 All emergency information made available to the public should also be mandatorily provided to hearing impaired. For hearing Impaired people, emergency information must be provided in formats accessible to such persons, namely open captioning/ sub-titling/ Sign language interpretation.
- 11.3 Public communications, public service messages and announcements in situations of disasters and emergencies must be made accessible to hearing impaired in appropriate forms of communication to leverage mainstream communication channels.

## **12. PHASE WISE IMPLEMENTATION**

It is recognized that a roadmap prioritizing the implementation of Access Service for different types of television programmes including news, emergency communications, pre-recorded audio-video content and the target set may differ for different categories of Service Providers. Keeping in mind

the aforesaid acknowledgement and considering the technical difficulties, the implementation of Access Service should be in a phased manner: -

12.1 Access Service should be first implemented by the public broadcaster Doordarshan.

12.2 Private broadcasters excluding news broadcasters may begin with one programme per week with captions from **16<sup>th</sup> September, 2019**.

12.3 Private News broadcasters may start with daily sign language news bulletins from **16<sup>th</sup> September, 2019**. To facilitate this, Doordarshan will provide its sign language news bulletin free of cost to the private news broadcasters till **31<sup>st</sup> December, 2020**, till which time private news broadcasters may develop their capacity to produce their sign language news bulletins.

12.4 The proposed phased manner implementation [except the exempted content], will be as under:

	2019	2020	2021	2022	2023	2024	2025
Close Captioning and/or Sign Language Interpretation (GEC, Regional & Movie Based and other channels)	5 %	10%	20%	30%	40%	50%	50%
Close Captioning and/or Sign Language Interpretation (News Channels)	5 %	10%	20%	30%	40%	50%	50%
Subtitles (Foreign - English Language Channel)	20%	30%	40%	50%	60%	70%	80%

12.5 A private broadcaster excluding news broadcasters may be required to provide Access Service: -

12.5.1 For minimum 50% of its content which shall be implemented in a phased manner (as stated above);

12.5.2 For minimum 80% of its content on Foreign - English Language Channels, which shall be implemented in a phased manner (as stated above);

12.5.3 The language of the Closed Captioning or Subtitles shall be the language of the content; and

12.5.4 For calculation of the above percentages, advertisements and teleshopping content on the channels should be excluded.

### **13. MONITORING AND IMPLEMENTATION**

The Ministry may set up a committee to monitor the implementation of the Accessibility Standards for Television programmes for hearing impaired.

### **14. PERIODIC REVIEW**

Due to the fast-moving technological developments and market conditions, this policy shall be reviewed every two years.

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## SCHEDULE

### SCHEDULE REFERRED TO IN PARAGRAPHS 8, 9, 10, OF THE POLICY

#### 8.1 Television and Set Top Boxes

(a) Television and set top boxes are the key method through which we access television programming. The television and set top box itself need to provide techniques for hearing impaired to access the content. For the hearing impaired, television and set top boxes need to provide easy options to access the captions, sub-titles and/or sign language interpretation. In addition, Television and set top boxes must provide support to accessibility features and settings but not limited to:

- Captioning Support

(b) Television, set top box and remote controls must ensure that key controls are easily distinguished and identified as well as supported for features like:

- Power On/Off
- Changing the Source
- Changing Channels and Volume
- Switching On or Off Closed Captioning
- Display of Channel Information/Guide
- Access to Playback controls (Play, Stop, Pause, Fwd, Rewind, etc.)
- Interacting with Menu Options
- Setup Options

#### 8.2 Captioning Guidelines

##### A. Presentation

- i. Subtitling/ closed captioning should use the best legible font for all subtitles/ closed captioning.
- ii. There is no fixed size for font as font size option is provided to the viewer.
- iii. Subtitles/ closed captioning on standard definition DTT services should be no less than 20 television lines for the capital 'V', to include those lines at the top and bottom of each character containing pixels that are at least 50% illuminated.
- iv. Subtitles/ closed captioning should be placed within the 'safe caption area' of a 14:9 display and should normally occupy the bottom of the

screen, except where they would obscure the speaker's mouth or other vital information or activity.

- v. It is particularly important to avoid obscuring the face, as this conveys emotions and tone of voice, as well as being necessary for lip-reading.
- vi. Recommended colours are white, yellow, cyan and green against a solid black background as these provide the best contrast. However, channels are free to use colour scheme to suit the look and feel of the channel. When scrolling subtitles/close captions need to be used, any scripted material should be used for advance preparation.
- vii. In addition to achieving the highest possible levels of accuracy and synchronization, live subtitles/close captioning should flow continuously and smoothly.

### **B. Lay-out**

- i. Subtitles should normally comprise a single sentence occupying no more than two lines, unless three lines will not obscure the picture. If necessary, sentences should be broken or reformed into more than one sentence at natural linguistic breaks so that each subtitle forms an understandable segment.
- ii. Where breaks occur, the split should be made in a way that makes clear that there is more to come.
- iii. This can be achieved by ending the first subtitle with a conjunction, a colon or semi-colon as appropriate, or even a short run of dots. Line breaks within a word must be avoided.

### **C. Non-speech information**

- i. In addition to speech, subtitles/closed captioning should clearly describe relevant non-speech information, such as the mood of any music playing and the words of songs if possible (using the # sign to precede and conclude music), louder speech (using capital letters), inaudible mutterings or incoherent shouts etc. (which should be explained as such).
- ii. Italics or punctuation marks may be used to indicate emphasis.
- iii. Subtitles should be used to identify the source of off-screen/off-camera speech where this is not obvious from the visible context.

### **D. Synchronization of speech and subtitling**

- i. The aim should be to synchronize speech and subtitling/ closed captioning as closely as possible.
- ii. Subtitle/ closed captioning appearance should coincide with speech onset and disappearance should coincide roughly with the end of the corresponding speech segment.

- iii. If necessary, subtitling/ closed captioning may be edited conservatively if this is necessary to avoid long delays between speech and subtitling.
- iv. In live programmes, the aim should be to keep the inevitable delay in subtitle/ closed captioning presentation to the minimum (no more than 3 seconds) consistent with accurate presentation of what is being said.
- v. If possible, subtitles/ closed captioning should not over run shot changes and should commence on a shot change when synchronous with the start of speech.

#### **E. Speed of subtitling**

- i. The speed should not normally exceed 160 to 180 words per minutes for pre-recorded programmes.
- ii. Although it may not be practicable to restrict the speed of subtitles/ closed captioning for all live programmes, commissioning editors and producers should be aware that dialogue which would require subtitles/ closed captioning faster than 200 words per minute would be difficult for many viewers to follow. Consideration may be given to displaying three lines of subtitling/ closed captioning rather than two, to allow longer for the subtitles/ closed captioning to be read, provided that this does not obscure important parts of the picture.
- iii. Slower speed and more heavily edited subtitles/ closed captioning are appropriate for young children, though care should be taken to ensure that these are accurate and grammatically correct, as children and parents use subtitles/ closed captioning in developing literacy skills also.

#### **F. Accuracy**

- i. Subtitle/ closed captioning users need to be able to watch what is going on, and to read the subtitles/ closed captioning, so it is important that these are as accurate as possible, so that viewers do not need to guess what is meant by an inaccurate subtitle/ closed captioning.
- ii. Broadcasters should ensure that subtitles/ closed captioning for pre-recorded programmes are reviewed for accuracy before transmission.
- iii. Where live subtitling/ closed captioning is to be provided, advance preparation is vital – where possible, any scripted material should be obtained, and special vocabulary should be prepared.
- iv. The subtitling/ closed captioning for repeated programmes that were first telecast live should be reviewed and edited if necessary.

### **8.3 Sign Language Interpretation Guidelines**

#### **A. Accuracy of Sign Language Interpretation**

- (i) Sign Language Interpretation must be accurate and convey the clear message to the hearing impaired users.
- (ii) Where Sign Language Interpretation is provided, Service Providers should be encouraged to provide it in a manner that the viewer can see not only the hands but also, where applicable, the facial expressions of the signer.

#### **B. Position**

- (i) Sign language interpretation must be provided in a picture-in-picture mode.
- (ii) The image of the signer superimposed upon the original programme should generally appear on the right hand of the screen and occupy a space no smaller than one sixth of the picture.

#### **C. Repeat broadcasts**

- (i) Once real-time news is aired, its repeat broadcasts must be provided with closed captioning as soon as possible. Whenever possible, in case of news, teleprompter captions may be used to quickly show captioning with little delay.

### **9. Equipment**

- (i) End-user equipment must support access services. Manufacturers and Retailers of television remote controls should ensure that all such equipment and software that is sold to the public is compliant with applicable universal design standards and considers the needs of hearing impaired.
- (ii) End-user equipment can also sometimes be very difficult to use for people with sensory and physical disabilities. As such, Service Providers and manufacturers of consumer equipment for audio-visual content must ensure that viewers who are hearing impaired and/or who use hearing aids, will be able to hear the programme aided by the use of wireless connections between the audio-visual content receiver and the hearing aid itself, or, wired connections between the audio-visual content receiver and an assistive listening device of the viewer's choice.

## 10. Electronic Programme Guides (EPGs)

- (i) Where applicable, service providers should ensure that the programme synopsis in the EPG indicates which programmes are accompanied by access services, using the following internationally recognized access service icons – closed captioning (CC), subtitling for the deaf and hard of hearing (SDH) and Indian Sign Language Interpretation (ISL). Where practicable, these abbreviations should be explained in an appropriate part of the EPG.
- (ii) If non-standard terms are used in any part of the EPG, and removal or replacement by the standard abbreviations would require software or hardware updates, this should be done at the next reasonable opportunity.
- (iii) Service providers should ensure that they provide accurate and timely information to EPG and other TV programme listing providers about television access services. Service providers should include in programme synopsis (provided such information is provided) about which programmes include access services.
- (iv) Service providers should ensure that EPGs provide information about assistance in relation to programmes (e.g. how to navigate programme listings, and how to operate television access services such as closed captioning and sign language interpretation), as well as facilities for making use of that assistance.
- (v) Service providers should provide an easily accessible part of the EPG (where practicable) or alternatively in other accessible ways (e.g. on websites or interactive services) information for hearing impaired on:
  - How to use the EPG;
  - How to use the access services accompanying the programmes;
  - What options exist for customizing the appearance of the EPG to make it easier to use; and
  - What additional sources of help and information are available in other places (e.g. on websites, or from telephone / text phone or SMS (helplines), whether from the EPG provider, or Service provider.

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