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# Guidance on 700 MHz band coexistence

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## Summary

- 1.1 Future use of the 700 MHz band by mobile services presents the risk of undue interference to some DTT viewers. That is, interference from mobile signals which degrades, obstructs or repeatedly interrupts the images, sounds and messages in DTT broadcasts.
- 1.2 To ensure viewers can continue to enjoy the benefits DTT services provide, those suffering from such interference need appropriate information about how to seek help and support should be given to them when they need it. Failing to provide it might leave viewers at risk. Vulnerable consumers could be particularly susceptible to harm.
- 1.3 Licences for spectrum in the 700 MHz band (694 - 790 MHz) therefore contain co-existence and viewer support obligations to ensure that they take appropriate and proportionate measures to resolve any undue interference to DTT viewers. These obligations require licensees to operate a scheme, approved by Ofcom,<sup>1</sup> to provide information and advice to DTT viewers who suffer undue interference caused by mobile services using the band and to provide them with assistance to resolve it. Licensees are required to submit a joint plan for a co-existence scheme or schemes to Ofcom for approval.
- 1.4 The purpose of this guidance is to assist mobile licensees by outlining our expectations for the kind of viewer support scheme Ofcom is likely to approve and how we are likely to assess whether licensees are meeting their obligations. There are three aspects of our guidance, to which licensees should refer when developing their plans for their viewer support schemes.
  - a) First, we set out which viewers the 700 MHz licensees are required to support under their licence obligation.
  - b) There are then four broad areas of viewer support in which we will usually expect the 700 MHz licensees to make provisions in order that DTT viewers are protected from undue interference. We would normally expect that licensees would need to make provisions in at least these areas to meet their licence obligations.
  - c) In each of the four areas, there are then more specific considerations we might normally expect the 700 MHz licensees to take account of. However, licensees may be able to meet their licence obligations in other ways, provided the scheme they operate gives DTT viewers adequate protection from interference.
- 1.5 This guidance is not legal advice on how licensees should comply with their licence obligations; nor does it prescribe rules in addition to the licence conditions. While Ofcom is likely to take account of it in assessing whether to approve licensees' schemes and whether they are meeting their obligations, licensees may formulate other schemes and

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<sup>1</sup> Or, in default of a scheme being approved by Ofcom, in accordance with a scheme we impose.

seek our approval for them. They may also take other steps to meet their obligations (provided they continue to meet them).

## The viewers we expect the 700 MHz licensees to assist

- 1.6 In general, the guidance here applies to the provision of information, advice and assistance to DTT viewers using rooftop aerials who lack other means of receiving TV services.
- 1.7 The licensees should also ensure that advice is available to viewers with indoor aerials. However, we are unlikely generally to require licensees to offer mitigation assistance and resolve interference to these viewers.
- 1.8 Some DTT viewers may be affected by interference but have other means to receive TV channels via a cable or satellite pay TV subscription (e.g. from Sky or Virgin Media). In these cases, licensees should consider proportionate means of helping these viewers. For example, they could choose to ensure that advice is available and that filters are available via retail, but we would not generally expect them to provide the full set of assistance measures that may be available to DTT-only users.
- 1.9 We will not require any consumer assistance scheme to help recover TV services provided on an interim basis in the 700 MHz band. The provider of these TV services, Arqiva, may separately make its own arrangements to offer support to viewers affected by interference should it wish to do so.
- 1.10 Viewers who experience interference may include vulnerable people. We will expect viewer support schemes to make specific provision to protect these viewers, who may be at increased risk of harm on account of their vulnerability and may consequently require a higher level of support.

## Areas in which we expect licensees to make provisions for viewer support

- 1.11 Below we outline the broad areas where we will usually expect the 700 MHz licensees to make provisions in order to provide support to viewers affected by undue interference.
  - a) **Engaging with consumers** – We would normally expect licensees to make reasonable arrangements to inform viewers who are at risk of being affected by undue interference.
  - b) **Assisting viewers who experience problems** – We expect licensees to make arrangements to provide information and advice to viewers who experience undue interference from mobile services in the 700 MHz band and to assist them to resolve it.
  - c) **Helping vulnerable consumers** – We would normally expect licensees to take account of the needs of vulnerable consumers, both in terms of communication and the information, advice and assistance they provide to resolve problems. This may involve delivering a higher level of service to vulnerable viewers than other DTT viewers receive.

- d) **Operational functions** – Licensees are required to make reasonable arrangements for the operational side of supporting DTT viewers. This includes how the costs of viewer support will be funded, how the required scheme will be operated and managed and its performance tracked, and how evidence of these matters will be provided to Ofcom.

## Specific guidance

- 1.12 In the following section we provide further detail on the specific considerations within each of the above we will usually apply, including the kind of measures they could involve. We would usually expect these to be covered in the plans for schemes submitted by licensees.

## Engaging with consumers

### Advice line

- 1.13 Viewers who experience interference may not know how to resolve their problems. We would therefore anticipate that a viewer support scheme would provide a source of information that viewers can turn to. For this reason, we would normally expect licensees to operate an advice line that viewers can contact.
- 1.14 Multiple advice lines (each run by a separate 700 MHz licensee) may create difficulties for viewers, inhibit their seeking help and limit a scheme's effectiveness. For this reason, we would normally expect licensees to provide a single advice line, with one number to call, to serve as a sole point of contact for viewers, even if licensees choose to have more than one entity implementing other parts of the scheme.
- 1.15 Licensees could meet the expectation to provide an advice line in different ways. For instance, they might decide to set up a new call centre to field calls related to 700 MHz interference or enter into a commercial agreement with another party to provide this service.

### Advertising and communications

- 1.16 Consumers will need to know what help is available to them should their DTT service suffer from interference. Failing this, viewers are unlikely to know who to contact to resolve their problems.
- 1.17 Therefore, we would normally expect licensees to make reasonable efforts to advertise the existence of an advice line as well as the availability of assistance to resolve interference issues. There are a number of channels that licensees might consider using to reach consumers, including social media, print advertising and "pop-up" messages on viewers' TV screens.
- 1.18 We would also normally expect licensees to consider how to communicate proactively with viewers who received assistance from at800 in confirmed cases of 4G interference. Viewers who suffered interference to their DTT service caused by mobile in the 800 MHz

band are more likely to be at high risk of interference from mobile services in the 700 MHz band.

## Assisting consumers who experience undue interference to resolve it

### Providing filters

- 1.19 Most reception problems resulting from 700 MHz coexistence issues can be fixed via the installation of a 700 MHz filter to the back of the television. Filters are smaller than a pack of cards and most people should be able to install them themselves without difficulty.<sup>2</sup> However, viewers could be left at risk of wasting time and money on ineffective equipment if required to seek out and purchase the appropriate model of filter on their own.
- 1.20 We would therefore normally expect licensees to take appropriate and proportionate measures to help viewers who experience undue interference from mobile in the 700 MHz band. We would normally expect this to involve sending a filter to viewers who contact the advice line and who are considered to be suffering from interference resulting from mobile in the 700 MHz band.
- 1.21 We would also normally expect additional assistance to be given to consumers if a filter does not resolve their interference problem. Licensees' obligations are to provide viewers with assistance to resolve undue interference they cause. A key consideration, therefore, is that the licensees must take those steps that appear appropriate and proportionate in the circumstances to ensure an effective remedy.

### Helping vulnerable consumers

- 1.22 Some people's ability to participate in society and receive services is affected by factors such as age-related conditions, disability or income. Life events such as bereavement, redundancy or illness can also temporarily affect them.
- 1.23 Some vulnerable consumers may face greater risk of missing advertising messages or be less able to make use of an advice line. For instance, a TV viewer with a visual impairment could miss on-screen messages. Some vulnerable consumers may be less able to install a filter by themselves. Mobility issues, for example, may prevent a vulnerable person from accessing the rear of their television to plug in the filter.
- 1.24 We would normally expect licensees to make specific arrangements to communicate with vulnerable consumers. Consumers may be considered vulnerable due to circumstances such as:
- a) age (particularly those over 75 years);
  - b) physical or learning disability;
  - c) physical or mental illness;

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<sup>2</sup> In research for 800 MHz coexistence, 95% of people said that fitting the filter having seen instructions was "easy".  
[https://www.ofcom.org.uk/\\_data/assets/pdf\\_file/0024/45528/dttinterference.pdf](https://www.ofcom.org.uk/_data/assets/pdf_file/0024/45528/dttinterference.pdf)

- d) low literacy;
  - e) communications difficulties; or
  - f) changes in circumstances, such as bereavement.
- 1.25 There are a number of ways in which licensees may give special consideration to communicating with vulnerable consumers. For example, they might engage with community organisations with expertise in disseminating information among vulnerable people.
- 1.26 We would also normally expect licensees to make reasonable arrangements to resolve vulnerable consumers' interference issues. This might involve making reasonable adjustments to the measures they offer other viewers. Such adjustments might include, for example, a home visit from an engineer, in lieu of sending a filter in the mail, when callers to the advice line identify themselves as vulnerable consumers.

## Operational functions

### Tracking performance

- 1.27 Once support for DTT viewers affected by coexistence issues has been set up, it is important that licensees are able to track its performance. This will ensure that viewer support delivers positive outcomes and identifies where changes might improve performance.
- 1.28 We would therefore normally expect licensees to adopt KPIs and / or SLAs and use them to track the performance of viewer support over its lifetime. Examples of areas in which it might be valuable to measure performance might include the timely delivery of filters to consumers with interference problems, the successful restoration of service to viewers, assistance provided to vulnerable consumers and the number of complaints received.
- 1.29 We would normally expect licensees to report quarterly to Ofcom on the performance of the support scheme, though the intervals between reports could be shorter as required. Licensees can therefore expect to need to keep records of performance and to ensure that this information is in a format that can easily be shared and understood.
- 1.30 Should it appear to Ofcom that viewer support is failing to achieve its objectives, then we would review its activities. The KPIs developed by licensees would assist us in reaching this decision. We would also be guided by the performance of the scheme in comparison to past viewer support operations (specifically the 800 MHz viewer support scheme and the viewer support scheme to assist viewers affected by 700 MHz clearance events).

### Complaints

- 1.31 In order to have their plan approved by Ofcom, the 700 MHz licensees will have to demonstrate that overall it will deliver an effective and good quality service to viewers and produce positive outcomes for them. However, it is possible that individual DTT viewers

may still find their interactions with the viewer support provider (or providers) unsatisfactory.

- 1.32 Therefore, we would normally expect licensees to demonstrate that they have made appropriate arrangements for managing any consumer complaints that may arise in the operation of the viewer support scheme.

### **Funding and management**

- 1.33 We would expect to see an indication in the plan submitted by licensees that reasonable consideration has been given to the costs involved in delivering the funding scheme.
- 1.34 This would be even more important should licensees choose, as they may, to form a single joint entity to deliver support to viewers along the lines of DMSL. In that case we might expect to see not only that licensees have considered the cost of delivering the support scheme, but also to how they will split this cost between themselves and the arrangements they make for the effective operation, management and oversight of any such body.
- 1.35 We would also expect to see in the plan submitted by licensees an appropriate upper limit for the cost of service restoration to ensure that the support offered to consumers remains proportionate to the scale of the interference problem.

### **Change control**

- 1.36 Once viewer support is in operation, experience may show the need to react to new information or changing circumstances. This may necessitate changes to the initial plan submitted to Ofcom. We consider it appropriate to allow licensees to retain the flexibility to adapt to new information and to amend their approach to supporting viewers accordingly.
- 1.37 However, we would normally expect licensees would need to submit any changes to the plan for consideration and approval by Ofcom.

### **Scheme duration**

- 1.38 Viewer support should only address interference into DTT from mobile services operating in the 700 MHz band and should not continue indefinitely. Therefore, we would expect to see a timeframe for support scheme operation in the plan submitted by licensees.