

# **BBC high definition television channel Public Value Test**

Joint BBC Trust/Ofcom description of  
service



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### 1. Purpose of this document

- 1.1. This document has been drafted by the BBC Trust and Ofcom. It is intended to outline our joint understanding of the BBC's proposals for a high definition television channel and to give clarity on the terms and scope of the proposal that will be assessed by the Trust during the Public Value Test (PVT). The PVT comprises two elements – a Public Value Assessment (PVA), carried out by the BBC Trust, and a Market Impact Assessment (MIA), carried out by Ofcom.
- 1.2. We have clarified certain details contained in the BBC Executive's PVT application. For the avoidance of doubt, we have agreed with the Executive that the description contained here supersedes the description of the proposed HD channel provided in section 3 of the Executive's application.
- 1.3. The details provided here are intended as a guide to the nature of the proposed service for the purposes of the PVT. These should not prejudge any eventual Service Licence.

### 2. Proposition

- 2.1. The BBC Executive is applying for permission to provide a single, linear, digital TV channel in high definition (HD) format.
- 2.2. It would be a mixed-genre channel, drawing from content across the BBC's channels, and would aim to meet the BBC's public purposes. The channel would be available free-to-view, and would carry no advertising.
- 2.3. The BBC is seeking approval to provide a service of nine hours per day, 15:00 to midnight, with some flexibility to extend beyond this to allow for the coverage of significant live sport or other events. At launch, the channel would offer a schedule of three to four hours per day, building to nine hours in late 2008.
- 2.4. The intention is to make the HD channel available on digital satellite, digital cable and digital terrestrial television. The BBC may also make the channel, or content from it, available on the internet, subject to value for money considerations and as technology allows. This could be through both [bbc.co.uk](http://bbc.co.uk) and internet protocol TV providers.

- 2.5. The BBC Executive has identified two mutually exclusive options for digital terrestrial television (DTT): the full nine-hour schedule or a four-hour schedule overnight between 0200 and 0600.
- 2.6. The full nine-hour schedule would be offered on DTT if sufficient spectrum capacity were available after digital switchover.
- 2.7. The four-hour overnight schedule would be offered ahead of digital switchover and possibly after switchover if insufficient spectrum capacity were available during the transmission hours of the nine-hour schedule. However, it is also possible that the BBC Executive may review its options for providing HD on DTT if sufficient spectrum were not available after switchover.
- 2.8. The four-hour overnight schedule would offer selected highlights from the following day's nine-hour schedule on cable and satellite. In order to provide capacity for this at launch, the BBC Executive proposes to take down the following services from Freeview between the hours of 0200 and 0600:
- BBC Four until close-down;
  - BBC Parliament, when broadcast;
  - two BBCi interactive video streams (accessed through the red button on remote controls);
  - the BBCi interactive news loop (also accessed through the red button – for the avoidance of doubt, BBC News 24 would not be affected).
- These changes would be subject not only to PVT approval by the BBC Trust but also to a separate Ofcom process. The DTT multiplex on which the BBC transmits the channels is licensed by Ofcom, so an application to Ofcom for a variation of the multiplex licence would be required.
- 2.9. Under the option where sufficient spectrum capacity becomes available following digital switchover, the four-hour overnight schedule on DTT would be replaced by the same nine-hour service as provided over the cable and satellite platforms. This would happen as digital switchover proceeds region by region. Full national coverage would be achieved on completion of digital switchover in 2012.

### 3. Platform

- 3.1. The BBC Executive wishes to make the new HDTV channel available on as many digital television platforms as is feasible. These are expected to include satellite, cable, DTT and (as technology allows) IPTV. It is unlikely to be practicable to offer the channel over mobile phone networks.
- 3.2. Any commercial agreements covering such arrangements would be subject to objective, proportionate and non-discriminatory criteria. The BBC Executive would also be guided by the requirements of the BBC's public purposes – for

example, to ensure that the BBC maximises reach and provides a sufficiently high quality offering while securing value for money.

- 3.3. If the proposition were to be approved by the BBC Trust, the timescales for offering the channel on different platforms would be broadly as follows:
  - Sky and digital cable – from the PVT decision, converting the existing trial into an ongoing service. The PVT decision is expected by November 2007;
  - Freesat – from platform launch, anticipated in 2008;
  - DTT – from mid-2008.
- 3.4. The satellite channel would be transmitted unencrypted, so it would be available free and without subscription through Sky’s free satellite service as well as through Freesat.
- 3.5. In principle, the BBC Executive is prepared to make the service available through internet protocol TV providers. Examples of internet protocol TV providers include BT Vision or Homechoice. The timing of launch of the service on such platforms would be dependent on external factors (e.g. developments in broadband access infrastructure), and cannot be predicted at this time.
- 3.6. The BBC Executive may also offer the channel on the open internet through [bbc.co.uk](http://bbc.co.uk), if and when there is judged to be sufficient audience demand and it is technically feasible to do so. This would be through the BBC iPlayer and could entail both live simulcast streaming of the channel as well as offering downloads and/or streams of HD programmes for catch-up viewing on-demand. Programmes offered for catch-up would be subject to the same time-based restrictions on viewing as have recently been approved for the BBC’s forthcoming on-demand offerings.

#### 4. Content

- 4.1. The BBC HD channel would be a mixed-genre service. Its aim, as far as possible, would be to showcase programmes produced in HD from the schedules of other BBC channels. These would be produced in HD end-to-end, not converted from standard definition (SD). Any individual programme may contain up to 25 per cent of non-HD material converted from SD – for example, archive shots in a documentary.
- 4.2. 95 per cent or more of the content would be HD versions of programmes broadcast in SD on other BBC channels.
- 4.3. Up to 5 per cent of the content could be programming commissioned for the channel itself. This would largely comprise short items repurposed from existing series, such as are commonly used to fill gaps between programmes.

- 4.4. The content mix would change over time, as more HD content became available. At launch, the mix would reflect the BBC programming that is currently available in HD. These would typically be high impact programmes in genres that particularly benefit from the HD format – mainly factual (such as natural history) and drama plus some arts and music, children’s, factual entertainment and live events and sport.
- 4.5. As more HD content becomes available, the content mix would become more representative of BBC television as a whole – including programmes that reach large audiences, such as *EastEnders*, *Casualty* and *Holby City*.
- 4.6. By the time the full nine-hour schedule is achieved, content would come from across the BBC’s portfolio of television channels. Approximately half the content would come from BBC One, 30 per cent from BBC Two and the rest from BBC Three, BBC Four, CBBC and CBeebies. The aim is for the bulk of the peak time schedule to be simulcast BBC One programmes. Programmes from BBC Two would be simulcast where the schedule allows. Except in the case of the four-hour overnight schedule on DTT (which would preview the following evening’s output on other channels), programmes would not be shown on the HD channel before their transmission on the originating channel.
- 4.7. First-run showings of sport and acquired film would generally not exceed 20 per cent of the content. Repeat showings of sport and acquired film would be limited to occasional narrative or archive repeats of, for example, major sporting events. In years when there are big, infrequently occurring international tournaments (including the Olympics or the World Cup but not annual events such as Wimbledon) the 20 per cent threshold may be breached. On average, this could be expected to happen every other year.
- 4.8. No sports content or films would be acquired solely for broadcast on the channel. While the channel would show mainly UK-produced programmes, acquired films could come from overseas.
- 4.9. As the channel evolves, about 30 per cent of the content would be repeats. These would be either archive repeats or narrative repeats. Archive repeats are programmes drawn from the archives, which for HD productions do not go back many years. Narrative repeats are programmes that would be shown several times for catch-up viewing in the period immediately after initial transmission. As the volume of available HD programming increases, the proportion of archive and narrative repeats could be expected to reduce.

## 5. Schedule

- 5.1. From launch, the service would be offered for three to four hours a day. This would build to nine hours (15:00 to midnight) by the end of 2008. Indicative schedules are shown below.

**Proposed BBC HD channel  
Indicative four-hour weekday schedule for 2007/08**

	<i>Monday</i>	<i>Tuesday</i>	<i>Wednesday</i>	<i>Thursday</i>	<i>Friday</i>
1900	Family Comedy	Lifestyle/Leisure			Children's
1930		Family Drama			
2000	Factual				
2030					
2100	Post-watershed Drama				Comedy
2130					Film/Acquisition
2200	Landmark Factual		Music/Arts	Comedy	
2230	Archive				

Proposed BBC HD channel  
Indicative nine hour weekday schedule, 2009  
(R = repeat; S/C = simulcast)

Time	Channel	Monday	Tuesday	Wednesday	Thursday	Friday
1500	Children's	Best of CBBC				
1530	Children's	Children's Drama and Factual				
1600	BBC TWO	Best of Pre-watershed Factual e.g. Coast, Who Do You Think You Are			Archive/catch-up	
1630	BBC TWO			Palin	Dragons' Den	
1700	BBC TWO	Best of Lifestyle/Leisure e.g. Holiday, Rick Stein Food, Gardeners' World			Archive/catch-up	
1730	BBC TWO				Top Gear	
1800	BBC ONE/ TWO	Pre-watershed Drama and Comedy e.g. Robin Hood, Holby, Judge John Deed			Archive/catch-up	
1830	TWO					
1900	BBC ONE	One Show	One Show	One Show	One Show	One Show
1930	BBC ONE	Factual	EastEnders	Leisure	EastEnders	Factual Entertainment
2000	BBC ONE	EastEnders	Holby	Match of the Day Live	Drama e.g. Judge John Deed	EastEnders Factual Entertainment
2030	BBC ONE	Panorama	Holby			
2100	BBC ONE	Drama e.g. Spooks, Silent Witness	Drama e.g. Mrs Pritchard		Drama e.g. State Within	Comedy
2130	BBC ONE					Comedy
2200		Archive/catch-up repeat	Archive/catch-up	Archive-catch-up	Archive/catch-up	Archive/catch-up
2230	BBC THREE/ FOUR	Post-watershed Drama from BBC THREE and FOUR				Jonathan Ross
2300	BBC THREE/ FOUR	Torchwood	Fear of Fanny	Synchronicity	Chatterley Affair	
2330	BBC TWO/ THREE/FOUR	Comedy and Music from BBC TWO, THREE, FOUR				
2400	BBC TWO/ THREE/FOUR	BBC Sessions	Lead Balloon	Electric Proms	Mitchell and Webb	Later...with Jools

5.2. There would be some flexibility to extend beyond the normal scheduled hours for the broadcast of live sport, music and national events. Such extensions could range from a short addition to the end of the schedule at night, to allow for the overrun of an event, to comprehensive extensions which would be applied only

during the period of major tournaments such as the Olympics. The four-hour overnight schedule on DTT would never expand beyond its scheduled hours.

- 5.3. Outside of the scheduled hours, a promotional loop for the channel would be shown on satellite and cable. This would not be shown on DTT.
- 5.4. We regard the nine-hour schedule, which covers peak-time and the other main viewing periods, as essentially a full channel proposition. Given this, as well as the BBC Executive's wish to have flexibility to extend beyond the nine-hour schedule and its intention to fill capacity on cable and satellite with a promotional loop, we intend to take a broad view of its potential operating hours.
- 5.5. In the option of a limited-hours overnight service on DTT, this would show programmes in advance of the following evening's schedule (subject to rights clearances). By way of example, a new episode of *Torchwood*, to be broadcast on BBC Two (and on the HD channel on satellite and cable) on a Sunday evening, could be shown on the overnight DTT service on the immediately preceding Sunday morning. This would allow DTT viewers with the necessary equipment to record the programme in HD in advance, and – if they chose to do so – to watch the recorded HD programme at the same time that it is available in HD to audiences on other platforms.

## 6. Technical

- 6.1. Technology for high definition television is evolving rapidly. Discussions proceed in the industry to agree transmission standards. The BBC participates in these.
- 6.2. The channel would be encoded in MPEG4 high profile level 4 for satellite and DTT and MPEG2 for cable. The BBC is working with equipment manufacturers and broadcasters (as part of the Digital Television Group) to ensure that MPEG4 profiles are adopted in such a way as to ensure that the BBC's proposed HD channel can be accessed via a wide range of set top boxes.
- 6.3. The BBC Executive expects that it might use spectrum capacity of up to 15 megabits per second (Mb/s) to provide the HD channel on DTT in the first instance. As compression technology improves, the BBC Executive says that it should be possible to carry the channel on DTT within 12 Mb/s.
- 6.4. The provision of HD programming in MPEG4 on DTT would be subject to a regulatory process by Ofcom. It would require a change to the technical code to which multiplex licences are subject.
- 6.5. While the primary aim would be to provide excellent picture quality and sound, the spectrum capacity required to provide the HD channel on DTT can be expected to reduce as compression technology improves. A reduction in the

required capacity for the service would reduce the impact on other BBC services. However, under specific circumstances – such as major events or breaking news or a late sitting in the House of Commons – where it is essential to broadcast an interactive news loop or BBC Parliament overnight, the proposed HD service would be taken down or its capacity temporarily reduced.

- 6.6. The picture resolution would be in line with the internationally recognised EICTA HD-ready standard, which currently specifies either 1080i (i.e. 1,080 lines interlaced) or 720p (i.e. 720 lines progressive). On each platform, the channel would operate at the specification that is judged to offer the best balance between picture quality and the efficient use of capacity.
- 6.7. To receive the BBC HD channel, viewers would need an HD-ready television screen and an HD-capable receiver (either a set-top box or a tuner integrated into the television set). That is to say, it is not sufficient simply to have an HD-ready TV screen. For every platform, consumers will incur costs upgrading their receiving equipment from standard definition to high definition capability. These costs are likely to be incurred as a one-off purchase price or a monthly fee. This applies even to viewers who use existing HD-ready integrated Freeview televisions. These would also require a set-top box, since they do not decode signals in MPEG4.
- 6.8. If the BBC were able to offer only a four-hour overnight schedule on DTT, it is likely that consumers intending to access the service would want to install an HD-capable personal video recorder (PVR) in order to record the programmes when broadcast, and view them later at convenient times. The BBC would transmit the overnight DTT schedule as a normal linear broadcast – viewers would be able to watch the service live if they wanted, and to record whatever elements of the broadcast they choose.

## 7. Costs and reach

- 7.1. The service is forecast to cost £21.4 million per annum in 2012 – if a full nine-hour service is provided on DTT in additional capacity. This figure does not include the cost of acquiring additional spectrum.
- 7.2. The BBC Executive forecasts that about 35 per cent of households will be HD-enabled by 2012. It would expect its HD channel to reach more than 60 per cent of these, under the scenario of a full nine-hour schedule on DTT as well as cable and satellite.