

**HOUSE OF LORDS
SELECT COMMITTEE ON COMMUNICATIONS**

Digital Switchover of Television and Radio

SUBMISSION BY BBC MANAGEMENT

Structure of this response

This response is divided into three sections:

- Digital switchover of television
- Digital switchover of radio
- Digital switchover help scheme

DIGITAL SWITCHOVER OF TELEVISION

Introduction

1. Digital switchover is the project of migrating all of the UK's television viewers from existing analogue services to digital television. The programme has five primary roles for the BBC:
 - i. part-funding and directing the co-ordination work of Digital UK, the body set up by the broadcasters to run the switchover programme;
 - ii. fully funding the marketing and communications activities undertaken by Digital UK;
 - iii. fully funding and running an assistance scheme for those most vulnerable in society who might otherwise have difficulties with the switchover (the Digital Switchover Help Scheme);
 - iv. funding and managing the activities of Arqiva, Siemens, and other suppliers who are together building the

distribution and transmission networks which are required to deliver digital television to viewers; and

- v. providing a range of attractive content and programming across a mix of digital services and platforms.
2. The BBC has been involved with work to do with the planning of digital switchover for more than a decade. However, the programme was formalised under the Communications Act 2003 (which set out the targets for Ofcom and the commercial broadcasters), the establishment of Digital UK by the broadcasters in 2005, and the grant of the 2006 Charter and Agreement to the BBC. Today, the BBC's specific obligations as regards digital switchover are set out in clauses 34 to 41 of the Agreement. The BBC has other, broadly comparable obligations in respect of Multiplex B¹ set out in the Broadcasting Act licence held for that multiplex.
 3. The technical activities of digital switchover are organised into a four-year consumer-facing programme running from the end of 2008 until the end of 2012. Switchover occurs regionally during this period, with the smallest building block being a 'transmitter group', that is, a main transmitting station and its associated relay transmitters. There are more than seventy transmitter groups in the programme, with the smallest in the Scottish highlands serving around twenty thousand people and the largest, Greater London and parts of the Home Counties, serving nearly twelve million people.
 4. Switchover at each transmitter group happens in two stages: the first stage, dubbed "DSO1", being the closure of the analogue transmission of BBC Two and the opening of the BBC's high-power Multiplex 1; the second ("DSO2") being the closure of the remaining analogue services and the opening of the other high-power digital services. To date, DSO1 and DSO2 have been

¹ Digital terrestrial television is organised into six 'multiplexes', or bundles of services broadcast as a single transmission. The BBC has two multiplexes: Multiplex 1, which was gifted to the BBC by Government, and Multiplex B, which the BBC acquired through a competitive process and which is licensed by Ofcom. After switchover in each area, Multiplex 1 carries the BBC's standard definition services and Multiplex B will carry public service high definition services (including BBC HD).

generally four weeks apart; although in 2010, this gap is being shortened to two weeks in most cases, in order to take maximum advantage of the momentum created by DSO1 in each area.²

Switchover so far

5. As part of its commitment to support digital switchover, the BBC launched a suite of digital television services, ranging from those targeted at children and young audiences (CBeebies, CBBC, BBC Three) to those focused on arts and culture (BBC Four) and news (BBC News channel and BBC Parliament). These services were designed to demonstrate the benefits of digital through a wider range of choice and to feature pre-dominantly UK-produced programmes, something that the commercial sector found it hard to do on that platform. In the period since their launch, many people cited the existence of these channels as the main reason why they adopted digital television.
6. By the end of 2009, just under one fifth of the population of the UK had been through switchover and lived in a digital-only area. Of those, about half are in the North West / Granada region and switched over in November and December 2009. The state of the network as at the end of the year is as in the table below:

² In one instance – the Channel Islands – switchover of all services will occur on the same day (17 November 2010)

	Transmitting stations	Households (m)	UK population (%)
Switchover completed	370	4.7	18.2%
Remaining (switchover not started)	788	21.8	81.8%

7. The result of this is that there is now no analogue television in the south-west of England, the Scottish borders, the north-west of England, and much of Wales. In 2010, switchover will complete in the remainder of Wales as well as in the West region and the Channel Islands, and take in the north of Scotland, including the Northern and Western Isles.
8. Ahead of switchover in each region, there is a two to three year engineering project which is upgrading the broadcast transmission infrastructure in order to make it fit for high-power digital broadcasting. This upgrade includes the antenna systems at the tops of tall structures (typically two to three hundred metres above the ground), as well as new transmitter, air-conditioning, and power plant in buildings below. In terms of the 'air-works' (i.e. those at height), the programme is broadly speaking on track having completed most of the works required for this year's switchover, and is now concentrating on works for switchover in 2011 and 2012. At the ground level, work is carried out much closer to switchover and similarly remains on schedule.
9. Switchover is the most challenging broadcast engineering project ever undertaken in the UK and one of the biggest civil engineering projects in the country. The BBC's opinion is that, despite its scale and complexity as a programme, switchover is progressing smoothly and in line with expectations.
10. This notwithstanding, switchover necessarily involves some disruption for every viewer as the process affects their area, and

the BBC is aware of some issues which have caused some additional problems for viewers in certain areas. The biggest of these have been the process of re-tuning (or re-scanning) receivers; and the situation around regional overlaps.

11. Those viewers who have converted to Freeview prior to switchover are required to re-tune their receiver both at DSO1 and DSO2 in order to acquire the high-power digital services. Re-tuning should be a straightforward exercise but the term used to describe and the method of performing the process varies hugely between receiver manufacturers. As the result of a nationwide re-tune required in September 2009, which affected viewers of Freeview both pre- and post-switchover, Digital UK has assembled re-tuning guides for more than three hundred different devices. These preparations and the knowledge gained from this experience on the part of Digital UK, and a growing familiarity of viewers with their devices, mean that the management of re-tuning has now become a routine task and one which no longer presents a significant risk to the programme.
12. Overlaps in regionality occur where viewers are served by two or more transmitters and are existing issue in the analogue network. Indeed, the problem translates across to the digital network; however, the highly automated tuning of digital receivers (and the well-intentioned lack of control given to the user) can cause more confusion for digital viewers. The behaviour of set-top boxes when presented with two services both signalled as having requiring the same channel number (e.g. BBC ONE Wales and BBC ONE North West) varies by manufacturer. Most set-top boxes will put one service at the right channel number and assign the other a number above 800 but there is nothing practically which can be done to ensure that all of the set-top boxes which are already in the market behave in a predictable way. This has been the main driver of audience contacts following the switchover in the North West region. Digital UK are now well briefed on the cause of the issue and the potential tactics which can be employed by viewers to resolve it, and are managing the communications process accordingly.

13. The BBC's approach in these instances is to support Digital UK's role as the primary contact for the public for matters to do with switchover by letting it lead the communications and public relations activities. This seeks to reduce viewer confusion by ensuring that there is a single, independent, focussed message about switchover. The BBC has covered switchover as a news item in its regional news programmes and on BBC Radio (in particular on BBC Local Radio), with a particular attention to the experiences of viewers as switchover comes to their area.

Freeview HD

14. In the spring of 2008, Ofcom, the Government, and the BBC Trust set out a plan to introduce public service high definition (HD) services as part of Freeview so that they would, at the end of the switchover programme, reach 98.5% of the UK population. The upgrade to HD required much more capacity than could be delivered by the existing Freeview multiplexes, and hence a change in the transmission technology to an as-then unratified standard called DVB-T2³. The regulators identified that the BBC's Multiplex B could be cleared of the standard definition services it was then carrying and so upgraded to create room for two HD services in the short term (plus one service from the BBC), and three in the medium term. By Order in summer 2008, Ofcom was given the power to allocate these slots to qualifying public service broadcasters and following a competition it awarded the first two to ITV and Channel 4 / S4C at the end of 2008.
15. Since the regulatory framework was put in place, the BBC has had to negotiate carriage arrangements with the other public service broadcasters and then amendments to its infrastructure contracts with Arqiva and Siemens. The broadcast infrastructure was in place by the middle of November 2009 and thus the technical launch of HD services took place on 2 December 2009 with the

³ DVB-T2 is a second generation terrestrial transmission technology developed by the international Digital Video Broadcasting group, which is designed to permit in the profile used in the UK a 67% increase in capacity compared to the existing technology. The standard was completed and ratified in September 2009.

completion of switchover in the North West region. As at January 2010, Freeview HD services are on-air in London and the North West and serve around 22% of the population. With switchover in south Wales and the west of England, and special early transmissions for four key metropolitan areas, this will rise to around 48.5% of the UK by June 2010. Thereafter, Freeview HD will roll out with switchover for each transmitter group, with those who switched over in 2009 upgraded to HD by the end of 2010.

16. The new transmission technology means that a new set-top box or integrated television will be required by all viewers who wish to watch Freeview HD services.⁴ As the technology is so new, these devices are not yet ready for general purchase but the BBC expects that products will start to be available to the public before Easter 2010. The BBC is encouraged by the enthusiasm which is being shown by manufacturers and hopes that this will stimulate the market quickly to provide a wide-range of easy-to-use and low-cost devices.

DIGITAL SWITCHOVER OF RADIO

17. The BBC has been broadcasting digital radio services using DAB since the start of 1998. The BBC launched a number of new digital radio services broadcast online, on digital television, and on DAB in 2002 and the family of radio services has remained stable since then. Today, the BBC uses its national DAB multiplex to broadcast the five radio networks also available in analogue (Radios 1, 2, 3, 4, and 5live) and six other services (Radios 5live Sports Extra, 6 Music, 7; the BBC Asian Network; and the BBC World Service).
18. Digital radio listening by DAB is already well established: a third of UK households already own a DAB set, representing a ten-fold increase in just five years. The Digital Radio Development Bureau estimated that ten million DAB receivers had been sold in the UK by the end of 2009. The BBC notes that RAJAR shows DAB has a

⁴ It should be noted that there is no change to the remainder of Freeview, and that standard definition services (including the BBC's range of channels) continue as normal and are unaffected.

13.3% share of listening – and combined with listening through the Internet and on television, digital platforms now account for more than 21% of radio listening.

19. Each week more than 4 million adults tune in to the BBC's digital-only radio services, which offer listeners a range of unique and valued content, from uninterrupted Test Match Special coverage on 5 Live Sports Extra to vintage comedy and drama on Radio 7, to global news coverage on the World Service.

Structure of DAB in the UK

20. DAB capacity in the UK is formed of a number of 'layers' of coverage. The BBC and the commercial sector each have access to one nation-wide layer⁵. Below this is a layer of multiplexes providing coverage on a regional basis to much of England and the central belt of Scotland. The third layer is one of 53 local multiplexes which together provide a patchwork coverage over the UK, with capacity reserved for the relevant BBC Nations or Local Radio station in each area.
21. The layer which is under the BBC's direct control – the national multiplex – is subject to further investment in order to improve coverage during this Charter period. At the start of the Charter period in 2006, the BBC estimated that the multiplex had an outdoor coverage of around 85% of the UK, and transmitters are now being built to improve this to 90% coverage of the UK. Given the law of diminishing returns which is apparent in extending the coverage of transmission networks, the BBC expects to build in the order of 140 transmitters to achieve this 5% coverage increase. (This compares to the network of 90 transmitters which achieve the 85% coverage.) The first seventy-five of these transmitters will have been built and will be on air by Easter 2010, with the remainder coming into service during 2010 and 2011.
22. The disparity for the BBC is in the coverage of its Nations and Local Radio services, where the roll-out of each multiplex is not under the BBC's control but under the control of the Ofcom-licensed commercial multiplex operator in each case. The BBC has taken up the capacity reserved for it in every instance but the lack of a licensed multiplex in some areas of the country (Cumbria, Suffolk, and the Channel Islands in particular) means that currently the BBC Local Radio stations for those areas have no route to digital carriage. Further, the award of licences but delay in launching services which has been apparent in the last round

⁵ The commercial nationwide multiplex is operated by Digital One, a company now owned by Arqiva. It is not licensed to broadcast in Northern Ireland.

of licensing from Ofcom means that the BBC still has a significant number of Local Radio stations which are not carried on DAB.⁶

23. Moreover, as the coverage of each local multiplex is determined by the licensee as that which it is economic to serve, BBC Nations and Local Radio services are in many instances carried across much smaller areas on digital radio than on FM or AM (where the coverage is determined by the BBC alone). The BBC recognises that this is a function of the way that the regulation and market is established but notes that it leaves large gaps in coverage, especially for its Nations Radio services. An example of this is Radio Scotland, for whom capacity is reserved on multiplexes whose licensed areas nominally cover all of Scotland. The reality is that each operator has concentrated their investment on the more densely populated areas around key towns thus most of the Highlands and interior of the country remain uncovered.
24. The BBC considers that any digital future for the radio industry must accommodate the needs of both the national and the local broadcasters, including its own Nations and Local Radio services and bring all of these players to digital together. The current local layer provides coverage to around 80% of the UK population, but the BBC considers that the digital radio upgrade should not take place until the digital coverage at the local layer matches that of FM at around 98%.
25. The BBC supports the Government's proposals to retain a small local community and commercial layer on FM after larger local, regional and national stations transition to digital. We also support industry proposals to simplify audience navigation of both analogue and digital services, through the introduction of a single interface that would list all services regardless of their broadcast medium. In this way, we believe that FM and DAB can co-exist effectively and can provide complementary types of radio service.

⁶ The BBC Local Radio stations affected are BBC Gloucestershire, Somerset, Hereford & Worcester, Derby, Lincolnshire, York, Surrey, and Three Counties Radio. The BBC continues to work with the new licensees to encourage them to start transmissions as soon as practicable.

The Digital Radio Switchover

26. The BBC notes that the Digital Britain report recommended that the conditions might be right for FM radio transmissions to cease in 2015 and the digital economy bill currently under scrutiny in Parliament would give Government the necessary powers to drive forward a switchover to digital radio. The BBC believes the issue of the digital radio switchover and its timing can be considered separately: the BBC is committed to a digital future for radio but is clear that the timing of such an upgrade should be contingent on certain criteria being met.
27. The case for the digital radio switchover is clear. The FM transmission network is full and has reached the limit of its possibilities. The upgrade from analogue to digital will not only transform the listening experience but will also introduce innovative new technologies and interactive experiences suitable for the twenty-first century. For listeners, digital radio provides more stations, better sound quality, and more interactivity and functionality.
28. The BBC considers that the criteria set out in Digital Britain report are broadly appropriate: that before a switchover process starts, the majority of radio listening should be to digital; and that the coverage of all affected services should be comparable to the coverage currently offered by analogue radio. The BBC would also expect switchover to be reliant on the availability of high quality, cheap digital radios for the home, for the car, and for personal and mobile listening.
29. The formation of Digital Radio UK is a key step in the preparations for a radio switchover and for the first time allows concentrated effort to be put into the digital radio switchover. The company has been created by the UK radio industry and has the backing of all of the key stakeholders in digital radio's future, including commercial operators, the BBC, and the multiplex and transmission operator, Arqiva. Digital Radio UK also works closely with the motor industry, digital radio manufacturers, and retailers.

30. In terms of coverage and reception, the radio industry is working on redefining digital radio reception standards. Until now, digital radio has been a complementary platform to analogue and the focus has been on maximising the geographical reach of signals. In order to make the switch to digital, the industry is now aiming to meet higher standards of coverage; enhancing signal strength, as well as further expanding geographical coverage. The process of network expansion that the BBC is currently engaged in shows this well: while some transmitters are bringing coverage to areas for the first time, many others are plugging holes in existing coverage and reinforcing reception across the UK.

THE DIGITAL SWITCHOVER HELP SCHEME

31. The Switchover Help Scheme was first formally proposed in the BBC Charter Review Green Paper in March 2005 which said that the Government would “*ask the BBC to: ...help to establish and fund schemes to help the most vulnerable consumers make the switch [to digital TV]*”. After a trial scheme, which was conducted in the Hulton ward of Bolton in July 2005, the Charter Review White Paper set out the proposed Scheme in more detail in March 2006. The first Help Scheme Agreement was published on 4 May 2007 and the Scheme now operates in accordance with a Revised Agreement which was published in December 2009 (Cm 7771).
32. The Agreement provides that the Help Scheme is to offer one set of digital television equipment to all those who meet the Scheme’s eligibility criteria and who receive television programmes from that Region as each ITV Region switches. Eligibility is judged and help made available in each Region from eight months before the final switchover of the first transmitter in the relevant Region until one month after the final switch of the last transmitter in that Region. The Scheme also offers eligible people installation of that equipment, instruction as to how to use it, the installation or upgrade of any aerial or satellite dish where needed, and a free aftercare service for a year after any

installation. Tenants who need a new or upgraded aerial or satellite dish must also show that they are responsible for their aerials or dishes and have their landlord's permission to upgrade or replace them or have made all reasonable efforts to obtain that permission.

33. The eligibility criteria, the nature of help to be provided and all matters of Scheme policy remain the responsibility of the Secretary of State. To be eligible to receive help one must be:
 - aged 75 or over; or
 - entitled to disability living allowances, attendance allowance, constant attendance allowance or mobility supplement; or
 - registered blind or partially sighted; or
 - someone who has been resident in a care home for more than six months (this last criterion having been added in December 2008).
34. There are, however, some exclusions from eligibility so, for example, you are no longer eligible for help if your partner or child has already received help and you cannot receive help if your home is not covered by a television licence.
35. The help usually costs a set fee of £40 but is free if you (or the adult responsible for you if you are a child), receive pension credit, income support, income-based jobseeker's allowance or income-related employment and support allowance. Of those qualifying for help from the Scheme it has been estimated that around 45% will qualify for free help.
36. Under the Scheme Agreement, the BBC has a number of detailed obligations. The BBC has established a wholly owned subsidiary company (DSHS Ltd) to manage the Scheme, and both DSHS Ltd and its sub-contractor, eaga plc, are also bound by these requirements. In particular, they are obliged to ensure that:
 - in each region the Scheme offers the most cost effective digital equipment, which will provide an eligible person with the public service television channels, and a choice

of other equipment for which an extra charge may be made;

- ensures that its most cost effective offer meets core receiver requirements so that it is easy to use for eligible people (e.g. it offers access to audio description services via a single button on the remote control);
- ensures that its staff are properly trained and have not been legally barred from activities involving children or vulnerable adults; and
- operates in accordance with a code of service standards to ensure that all its customers receive a high quality service which is sensitive to their needs.

37. A pilot Scheme was operated by Capita as the BBC's subcontractors in the Copeland area in October 2007. After a very competitive procurement process, eaga were appointed to deliver the national scheme in February 2008 and they have been delivering the Scheme since then.
38. The Scheme has operated very successfully since its inception and by the end of January 2010 had completed over 260,000 installations of digital equipment with a very high degree of customer satisfaction – a customer satisfaction survey is completed by 200 – 300 Help Scheme customers every month and, during 2009, 93.8% of respondents rated their willingness to recommend the Scheme at 8 or above out of 10. The Department for Work and Pensions, local authorities (for registered blind and partially sighted people) and the Department for Culture, Media and Sport (for care home residents), provide the Scheme with the names and addresses of those who are eligible and everyone who is eligible for help receives a letter (and two further reminders if they do not reply) offering them help.
39. Take up of the Scheme is currently averaging around 18%. There is of course a significant overlap between the different categories of eligibility – indeed it is quite possible for an individual to be aged over 75, entitled to the qualifying disability benefits, registered

blind or partially sighted and resident in a care home – but the breakdown of those taking up the Scheme is broadly as follows:

Breakdown of those seeking help from the Scheme

	'Free'	%	'£40'	%	Total
Under 75	76,692	78%	21,849	22%	98,541
Over 75	105,020	62%	64,171	38%	169,191
Total	181,712	68%	86,020	32%	267,732

Within the total above – the following groups are split as follows

	'Free'	%	'£40'	%	Total
Blind & partially sighted	9,164	72%	3,485	28%	12,649
Care Homes	22,382	94%	1,431	6%	23,813

40. The costs of the Scheme are being met from the television licence fee and the original budget set for the Help Scheme was £603 million. The BBC is obliged by the Scheme Agreement to ring-fence the following sums from current and future licence fee revenue to fund the Scheme between now and 2012–13:

2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
£12.6 m	£67.6 m	£129.6 m	£159.0 m	£160.7 m	£73.5 m

41. By the end of 2008–09 just over £50 million of these ringfenced funds had not been spent and a significant underspend is now expected to arise between now and 2012–13. The original £603 million budget, which assumed take up of 65%, was set by the

Department for Culture, Media and Sport in consultation with the BBC and in the light of detailed independent research in January 2006 by Taylor Nelson Sofres as to the propensity of people to take up help under the Scheme. Input was also received from the Central Office of Information, the Department for Work and Pensions and local authorities as to the possible response rate based on their experience of analogous schemes in other areas. Subsequently a very competitive procurement exercise reduced the cost of the Scheme at that level of take up to £495 million. A proportion of that £495 million is made up of fixed costs but the final outturn for the Scheme will depend crucially upon the level of take up.

42. Take up varies region by region and forecasting the final outcome rests on a number of variables. For example:

- We are currently assuming that there will be no further changes to the Scheme although some changes have been made already (like extending the Scheme to care homes) and the Secretary of State is of course able to propose further changes;
- Our research suggests that there may be a further 5–10% of people who might benefit from our help. These people are not being left with blank screens at switchover because they are helping themselves, but they are finding switchover a struggle. We shall therefore continue to work closely with our partners in local authorities, local communities and the voluntary sector to encourage them to think about using the Scheme; and
- The Scheme will soon be introducing a new Freeview set top box which is much easier to retune. Since some people find retuning boxes very difficult, this may prove popular.

43. We do not therefore believe that it would be wise to assume that take up will necessarily remain at around 18% or to be categorical about the level of underspend at this stage with fewer than a fifth

of the country having been through switchover. When the NAO looked at this question in 2008 they concluded that it was then "too early to draw firm conclusions on the funding requirement for the Help Scheme" but that, if national take up matched that in the first area to switch in Copeland, Cumbria, the total underspend by the end of 2012–13 could be around £250 million, about half of which came from the procurement and half from lower take up.

44. If it is assumed that take up could increase, but by no more than the 5–10% of people who might benefit from the Scheme, but that there will be no other major changes, the underspend may still now be higher but we do not think that it would be safe to assume that it would increase by more than a further £50 million. It is important to stress, however, that only £50 million of underspend had arisen by the end of 2008–09 and most of the forecast underspend is based on expenditure which has not yet occurred and income which the BBC has not yet received.
45. As the Scheme Agreement makes clear, "decisions on how this underspend is dealt with will be dealt with nearer the time that any underspend becomes apparent, possibly in the context of the next licence fee period".
46. Meanwhile the work of the Scheme continues and DSHS Ltd remains answerable to the BBC Trust to deliver a high quality Scheme against four key performance measures:
 - Value for money in the contract
 - Encouraging appropriate take up of the scheme
 - Helping the most vulnerable and hard to reach and
 - Customer satisfaction.