

# Your guide to the **digital** TV switchover



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# Contact us

## Digital UK

Digital UK will generally be your first port of call for queries from constituents about switchover.

<b>Website:</b>	<b><a href="http://www.digitaluk.co.uk">www.digitaluk.co.uk</a></b>
<b>Help Line for constituents:</b>	<b>08456 50 50 50</b>
<b>Public Affairs:</b>	Seb Dance: <b>020 7462 5438</b> <b><a href="mailto:seb.dance@digitaluk.co.uk">seb.dance@digitaluk.co.uk</a></b>
<b>Regional/national managers:</b>	Border TV region: John Askew <b>0778 606 7758; <a href="mailto:john.askew@digitaluk.co.uk">john.askew@digitaluk.co.uk</a></b>
<small>Note: regional/national managers are appointed in each area 2-3 years before switchover</small>	Wales: Gwenllïan Carr <b>07792 010 758; <a href="mailto:gwenllian.carr@digitaluk.co.uk">gwenllian.carr@digitaluk.co.uk</a></b>
	West Country TV region: Bill Taylor <b>07970 861 238; <a href="mailto:bill.taylor@digitaluk.co.uk">bill.taylor@digitaluk.co.uk</a></b>
	Granada TV region: Jo Waters <b>07949 770 409; <a href="mailto:jo.waters@digitaluk.co.uk">jo.waters@digitaluk.co.uk</a></b>
<b>Address:</b>	Digital UK, the Met Building, 22 Percy Street, London W1T 2BU

## Government

Questions on the policy of switchover, including the high-level timetable for switchover and the Help Scheme should be directed to Government.

<b>Department for Trade and Industry</b>	<b>020 7215 5000</b>
<b>Department for Culture, Media and Sport</b>	<b>020 7211 6200</b>
<b>Website:</b>	<b><a href="http://www.digitaltelevision.gov.uk">www.digitaltelevision.gov.uk</a></b>

## Ofcom

Ofcom can answer questions on broadcasting regulation, competition issues, spectrum management (e.g. the Digital Dividend Review), TV reception and interference problems.

<b>Public and Political Relations Manager:</b>	Adam Higgitt: <b>020 7981 3664</b> <b><a href="mailto:adam.higgitt@ofcom.org.uk">adam.higgitt@ofcom.org.uk</a></b>
<b>Address:</b>	Ofcom, Riverside House, 2a Southwark Bridge Road, London SE1 9HA

# Quick answers to the most frequently asked questions

## What is digital switchover?

Between 2008 and 2012 the old analogue TV signal will be turned off, and the existing digital TV signal will be boosted to cover nearly every household in the UK.

**Section 1** covers the background

## What will digital TV give my constituents?

All the TV channels they currently get – plus many more, along with better picture and sound quality, digital radio, text and interactive services.

**Section 1** explains the benefits

## Who is leading the process?

Digital UK is the not-for-profit organisation set up by the public service broadcasters to lead the implementation of switchover. Ofcom and the Government also have key roles.

**Section 2** has more on responsibilities

## When is my constituency switching over?

When your constituency switches depends on what TV region or regions it is in. The covering letter to this pack is tailored to your constituency.

**Section 3** has the switchover timetable

## What if my constituents can't get digital TV now?

Even if they can't get digital TV through an aerial now, they almost certainly will be able to after switchover. Additionally, satellite services already cover nearly all households, while cable or broadband may also be an option.

**Section 4** gives details on digital TV options

## Will my constituents need to replace their TVs, videos and aerials?

Virtually all TVs can be upgraded. Analogue VCRs and DVD recorders will work with some loss of recording capability but newer digital recorders are better. Most roof-top aerials will be fine, but some indoor aerials may not be.

**Section 4** explains how to prepare

## What about people with a shared aerial, such as those living in blocks of flats?

They need to ask their landlord or managing agent to arrange a survey of the communal TV system and ensure it will work after switchover.

**Section 4** has more on communal TV systems

## How much will it cost each household to switchover?

Currently from a one-off £20 payment per TV set – more if people choose higher specification equipment, need their aerial upgrading, or go for a subscription service.

**Section 4** has more on household costs

## What about older and disabled people who might have difficulties switching?

A Help Scheme has been established for the over 75s, people with significant disabilities and those registered blind or partially sighted.

**Section 5** explains the Help Scheme

## What about households that can't get digital TV after switchover?

The same proportion of households who get analogue TV today should be able to get digital TV through an aerial after switchover. But digital TV is also available through satellite, cable and over broadband.

**Section 6** explains more about coverage

## Isn't digital TV interference worse than analogue?

Some people think so. But the signal after switchover will be much more robust than it is now, so most people will hardly ever experience digital interference.

**Section 6** has more on interference

## Section 1

# The background to digital switchover

### What is digital switchover?

Starting in 2008 and ending in 2012, television services in the UK will go completely digital. The existing analogue television signal will be switched off TV region by TV region and the digital terrestrial signal will be boosted. We expect all households that can currently receive good quality analogue terrestrial TV through their aerial to be able to receive digital terrestrial TV after switchover.

To continue to receive TV after switchover, viewers who have not already done so will need to have converted or upgraded their TV equipment to receive digital signals, whether through their aerial, by satellite, cable or broadband. Over 77% of households have already converted at least one TV to digital.

### What can I do as an MP to help my constituents get ready for switchover?

This pack should help you to answer many of your constituents' questions about switchover. If they need further information, you can direct them to Digital UK (08456 505050; [www.digitaluk.co.uk](http://www.digitaluk.co.uk)). Digital UK can also provide you with printed materials on request, for you to pass on to your constituents.

### What are the benefits of switching to digital TV?

- **Switchover is fairer.** Today, one in four households cannot get digital TV via their aerial, and many still cannot receive channel five. By switching off the existing analogue broadcasting system we can boost the digital TV signal and provide people with a greater choice of affordable digital options
- **Digital TV is more efficient.** It can carry many more channels than analogue and will free up spectrum that can be used for a range of services, such as more TV services in either standard or high definition, wireless broadband, local TV, wireless home hubs and many others
- **A world leader in broadcasting.** Moving to the best available technology will ensure the UK continues as a world leader in broadcasting

For information on the benefits of switchover see [www.digitaltelevision.gov.uk](http://www.digitaltelevision.gov.uk)

### How was the timetable for switchover decided?

The timetable for completing switchover is based on the time needed to upgrade the UK network of over 1000 transmitters. Within the 2008-2012 switchover period, the order in which the TV regions switch is based on the need to manage the interaction between neighbouring transmitters within the UK and abroad to avoid disruption for viewers.



## **Is switchover happening outside the UK?**

Yes. The European Commission has asked all EU member states to switchover by 2012 and the Netherlands have already done so. Outside the EU, the US will switchover in 2009; Japan will follow in 2011.

## **Will switchover affect radio?**

There are no current plans to switch off the analogue radio signal. However, digital TV also delivers digital radio services through your TV, many of which are not available on FM or AM. In a few areas, the process of switching over may temporarily disrupt some radio reception (see Section 6).

## Section 2

### Who is responsible for digital switchover?

#### What are the roles of Government, Digital UK and Ofcom in relation to digital switchover?

The **Government** is responsible for the policy of digital switchover, including the high-level 2008-2012 timetable and the establishment of a Help Scheme for those who may need practical assistance with switchover (see Section 5 for further information).

**Digital UK** is the not-for-profit organisation set up by the public service broadcasters and multiplex operators to lead the implementation of switchover. This involves: coordinating the technical roll-out of a high power digital terrestrial television network; communicating with the public about digital switchover to ensure everyone knows what is happening, what they need to do and when; and liaising with stakeholders to ensure understanding of and support for the switchover programme.

**Ofcom** is the independent regulator and competition authority for the communications industry, with an overall statutory duty to further the interests of citizens and consumers in communication matters. Ofcom is responsible for ensuring: competition between digital platforms; the optimal use of the radio spectrum; and that broadcasters and others comply with their licence obligations, in areas such as transmission coverage and reception.

#### What is the role of the BBC and other public broadcasters in switchover?

The BBC will, through the Licence Fee, provide £200m to fund Digital UK's public communications campaigns and £600m to fund the Help Scheme. Digital UK's running costs are shared by the BBC and the other public service broadcasters. In addition, all the public service broadcasters will be communicating with their viewers about switchover.

#### What other organisations are involved in digital switchover?

Digital platform operators, TV equipment manufacturers, transmission site owners, transmission providers, retailers, aerial installers, charities and consumer groups are all actively involved in preparations for switchover.

## Section 3

### When is switchover happening and how do I know when it will affect my constituency?

#### When is switchover happening?

Whitehaven in Cumbria and the surrounding area will lead the switchover programme in October 2007. Switchover will then roll out TV region by TV region between autumn 2008 and the end of 2012. A map showing the TV regions is printed on the cover of this pack.

Within a TV region, each main transmitter and the relay stations which carry its signal will generally switchover at the same time. Most TV regions contain more than one main transmitter and switchover for each of these might take place at different times. Further detail on the timings for each main transmitter will be announced as we get closer to the regional switchover date.

The details that have been announced so far are set out below:

TV region	Timing of switchover for the TV region	Timing of switchover for main transmitters and associated relays within the TV region
Whitehaven and Copeland	2007	<b>October 17th 2007</b> (Whitehaven, Cumbria)
Border	2008/09	<b>Oct – Dec 2008</b> (Selkirk) <b>Apr – Jun 2009</b> (Caldbeck)
West Country	2009	<b>Apr – Jun 2009</b> (Beacon Hill, Stockland Hill) <b>Jul – Sep 2009</b> (Huntshaw Cross, Redruth, Caradon Hill)
Granada	2009	<b>Oct – Dec 2009</b> (Winter Hill)
Wales	2009/10	<b>Jul – Sep 2009</b> (Preseli, Carmel) <b>Oct – Dec 2009</b> (Llanddona, Moel-Y-Parc) <b>Jan – Mar 2010</b> (Blaenplwyf, Long Mountain, Wenvoe)
STV North West	2010	To be determined
STV Central	2010/11	To be determined
Yorkshire Central Anglia	2011	To be determined
Meridian London Tyne Tees Ulster	2012	To be determined

## **Will switchover clash with the Olympics?**

No TV region will be switched over during the Olympics. Most regions will already have gone digital. The remainder will be switched once the games are over.

## **How can my constituents tell which TV region they're in?**

The best way to check which TV region you are in is by going to Teletext page 106 or seeing which ITV news service you receive.

## **How can my constituents tell which transmitter they receive their TV signal from?**

Digital UK will introduce an online postcode checker, in autumn 2007, to tell people which transmitter(s) they are most likely to receive their TV from. In many parts of the country households have the option of receiving terrestrial TV from more than one transmitter, depending on which way they point their aerial. In these 'overlap' areas people living on the same street could therefore switch at different times.

## **What will actually happen at switchover?**

At each transmitter, switchover will happen in two stages. First, the terrestrial BBC2 analogue service will be switched off overnight, together with some of the existing BBC low power digital services, and replaced with several BBC digital channels, such as BBC1, BBC2, BBC Three, BBC News 24 and CBBC at high power.

Four weeks later, the remaining analogue channels and low power digital services will be switched off overnight and replaced by the remaining high power digital channels. During the four week period, viewers have the opportunity to check that their TV equipment is capable of receiving digital terrestrial TV.

Satellite, cable and broadband services already broadcast digitally and will continue unchanged through switchover.

## **How and when will my constituents find out about switchover?**

Digital UK's TV and press switchover advertising campaign started in May 2006. Currently, about eight out of ten people are aware of switchover. Awareness and understanding of switchover will be increased through regional campaigns, which start in each TV region two to three years before switchover. As part of this regional activity, Digital UK will send a leaflet to every household at least twice, to tell them about switchover and what they need to do. The analogue TV channels will also run their own information campaigns and will carry captions identifying the date of switchover. We will also keep you and other public representatives up-to-date, so that you can give your constituents practical advice.

## What is the timeline for switchover in each TV region?

<b>2-3 years before switchover</b>	<p>Digital UK and broadcasters commence communications with viewers in the TV region.</p> <p>Every household in the region receives a first leaflet from Digital UK detailing the timetable and plans for switchover in that region. This is supported by TV adverts and material in the local and regional press.</p> <p>Digital UK regional/national manager appointed to work with local stakeholders.</p>
<b>12-18 months before switchover</b>	<p>Digital UK and local partners commence outreach work to hard-to-reach groups, including local events, a schools programme and work with local charities.</p>
<b>6-9 months before switchover</b>	<p>The Help Scheme will write to all those eligible in the region, offering support.</p> <p>Captions will start to appear on all analogue channels reminding viewers of the need to upgrade their televisions to continue receiving TV signals following switchover.</p> <p>Exact dates of switchover for the TV region announced.</p>
<b>Switchover starts</b>	<p>BBC2 will be switched off as a reminder that all analogue channels will shortly be switched off.</p>
<b>Switchover completed (four weeks later)</b>	<p>All analogue terrestrial services switched off and the digital signal powered-up to enable all households with an aerial to receive digital terrestrial television; in many cases for first time.</p>
<b>2 months after switchover</b>	<p>Digital UK and local partners continue to offer support.</p>

## Section 4

### How do my constituents prepare for switchover?

#### How can my constituents get digital TV?

There are four main options for receiving digital TV:

- Through an **aerial** (e.g. Freeview, Top Up TV, BT Vision), using either a set-top box or a television with a built-in digital tuner (an IDTV)
- By **satellite** (Sky, or freesat from Sky)
- Through a **cable** (e.g. Virgin Media or Wight Cable)
- Over **broadband** (i.e. Tiscali)

The availability of these options varies according to where people live. Currently, satellite is available to 95-98% of the population, cable to 51%, digital terrestrial to 73% and TV over broadband to 10%.

A postcode checker on the Digital UK website ([www.digitaluk.co.uk](http://www.digitaluk.co.uk)) can tell people which options are available to them today. From autumn 2007, the postcode checker will also provide details of the digital options available after switchover.

#### Are my constituents likely to switchover in advance or will they wait until they have to convert to digital?

Most homes can already receive digital TV. Indeed, over 77% of homes in the UK have already converted at least one TV set to digital, a figure that includes satellite, cable, aerial and broadband delivered TV. We expect that this figure will continue to rise. However, we also expect that some households will leave switching over until the last minute. This will include households who want to get digital terrestrial TV but who are among the 27% who will not be within coverage until switchover actually takes place in their TV region.

#### Will all TV equipment need to be upgraded?

Every set on which you wish to continue watching TV after switchover will either need to be connected to a set top box, whether for a terrestrial, satellite, cable or broadband service, or to have a built-in digital tuner. TVs which you are not planning to use for watching TV (for example spare sets used only for playing video games) will continue to work without needing to be upgraded.

#### Can all TV equipment be upgraded?

Almost all TVs can be converted to digital with a set-top box, even black and white ones and older televisions without scart sockets. If a TV does not have a scart socket (a 21-pin connector that is normally found on the rear of a TV set), you can purchase a digital set-top box that connects to the aerial connector (RF input) on the television, or an adapter that enables a scart lead to be connected to the television.

## **Do video recorders need to be upgraded too?**

Existing analogue recorders, including VCRs and analogue DVD recorders, will continue to work after switchover, but will lose one important feature. They will play back tapes as before, but they will not be able to record one digital channel while a different one is being watched. Those who wish to record one digital channel while watching another at the same time are advised to upgrade to a digital TV recorder with two or more tuners (such as Freeview Playback, Sky+ or V+ from Virgin Media; also known as PVRs and hard disc recorders). Prices for digital TV recorders start from £99, without a subscription.

## **How much will it cost to upgrade existing TVs and videos?**

The cost will vary from household to household depending on the number of TVs and videos to be converted, the type of service chosen and whether aerials need upgrading (see below).

A free-to-view service, without a subscription, would be the cheapest option, with a digital terrestrial set-top box currently costing from around £20, while Sky's free-to-view satellite service is available for a one-off cost of £150. Subscription services start from around £11 per month.

## **Is free-to-view digital TV only available through an aerial?**

No. Sky currently offers a freesat service, with users paying £150 for a dish and set top box. The BBC has also announced plans to launch a freesat option.

## **Will my constituents need to upgrade their existing roof-top aerial to receive digital terrestrial television?**

We estimate that between 5% and 10% of UK households will have to repair or replace a roof-top or loft aerial installation in order to get digital terrestrial TV, though the exact number will depend upon how many households choose digital terrestrial TV over satellite, cable or broadband. Upgrading a roof-top aerial should cost £80-£150.

## **Will my constituents need to upgrade their set-top aerials too?**

Many existing indoor aerials – perhaps as many as 50% – may not be able to pick up digital terrestrial TV. In general, if a good quality analogue picture is currently received using an indoor aerial, it is likely that the same aerial will be able to receive digital terrestrial television after switchover. Good quality replacement indoor aerials are available from £10, although in some cases roof-top aerials will be required. Recent consumer test reports on set-top aerials are available from Ricability ([www.ricability-digitaltv.org.uk](http://www.ricability-digitaltv.org.uk)).

## **What if my constituents are living in a block of flats or communal accommodation?**

Households in communal buildings often rely on a communal TV system, which will need to be ready for switchover. Residents need to contact their landlord or managing agent to discuss their options.

We expect that many communal TV systems will need to be upgraded if they are to carry digital TV signals. Depending on the nature of their agreement, landlords may seek to recoup the costs of this work from their tenants and leaseholders through an increase in charges or one-off fees. The level of these increases will depend on the kind of system being installed and the number of individual properties involved. Increases in service charges that arise from upgrades to communal TV systems are eligible for Housing Benefit.

Digital UK is targeting communications at landlords and tenants to help them prepare for switchover.


## What if a landlord or managing agent refuses to upgrade a constituent's communal TV aerial system?

Most landlords and managing agents are already taking action, and residents should check to see what work is being done or has been planned. The tenancy lease or agreement should set out who is responsible for provision, maintenance and upkeep of communal services, including aerial systems. If residents have problems realising these terms, they should seek advice from the Citizens Advice Bureau.


Residents could also install their own TV reception equipment, whether a set-top aerial (where there is sufficient signal strength) or satellite dish (where they have line of sight to a satellite). They may need permission from their landlord or managing agent to install any external reception equipment.

Specific information and advice for landlords is available from [www.digitaluk.co.uk/propertymanagers](http://www.digitaluk.co.uk/propertymanagers).


## How do my constituents find a reliable aerial installer?

To help people identify competent and trustworthy aerial installers, the Registered Digital Installer (RDI) scheme was launched in 2006. Members of the scheme have had a criminal records check and have NVQ qualifications in aerial installation. RDIs can use the 'digital tick' logo (**digital** ) to market their services. At present, the number of RDI accredited aerial installers is low, but we expect more to become accredited as switchover approaches. Visit the RDI website at [www.rdi-lb.tv](http://www.rdi-lb.tv)

## How will my constituents know if they are buying a digital product?


The 'digital tick' logo (**digital** ) is used by all major electrical retailers and manufacturers to mark digital television equipment (TVs, set-top boxes and recorders).

## Are retailers a reliable source of advice for my constituents?

Retailers will be the first port of call for many consumers. Digital UK has developed a switchover training scheme for retail staff, which is being used by thousands of staff nationwide. Trained staff can be identified by **askdigital**  badges.

Retailers, manufacturers and service providers have a duty to describe their products and services accurately. Consumer Direct, the government-funded telephone and online service can offer information and advice on consumer issues ([www.consumerdirect.gov.uk](http://www.consumerdirect.gov.uk) or 08454 04 05 06).

## What is the link between switchover and high definition TV (HDTV)?

There is no direct link between HDTV and switchover. HDTV refers to a new standard of screen definition that provides a sharper screen image than standard definition pictures. An HD-ready TV is not necessarily an integrated digital TV; consumers also need to look for the 'digital tick' logo (**digital** )

HDTV services are already available via subscription satellite and cable and may become available on free satellite or digital terrestrial TV in the future.

## If HDTV services become available on digital terrestrial TV in the future will viewers need new television equipment?

Viewers would need to buy or already own an HD-ready TV. In addition, they would need to buy a new set-top-box. The current generation of Freeview boxes or integrated digital TVs cannot receive HDTV services.

## **What is the environmental impact of digital switchover?**

### **Energy:**

Digital switchover is expected to have an impact on both transmitter and consumer power usage.

Digital transmission is more efficient than analogue in terms of power usage, leading to an estimated reduction in energy usage by the transmission networks of 186 GWh per year.

Consumer power usage is expected to rise as a result of switchover, primarily because of the rapid increase in the take-up of set-top boxes. We estimate that the increase in consumer energy use will be between 966GWh and 2,816GWh per year above that predicted for market take-up in the absence of a set switchover timetable. The increase is equivalent to a 0.37% increase in domestic electricity consumption.

The central estimate for the total impact of switchover is a net increase of 1,705GWh per year. This would be reduced if more energy-efficient TV equipment was available to consumers.

### **Waste:**

Digital switchover itself does not require any equipment to be thrown away, but it may result in people disposing of some equipment, such as old TV sets and VCRs, earlier than they otherwise would have done.

Any waste electrical equipment produced as a result of the switchover will be subject to the requirements of the EU Waste Electrical and Electronic Equipment (WEEE) Directive. From July 2007, producers of electrical goods will be financially responsible for the collection, treatment and recycling of waste electrical and electronic equipment.

## Section 5

### What help will be offered to people who may find switchover difficult?

#### What is the Digital Switchover Help Scheme?

The Digital Switchover Help Scheme, managed by the BBC, is designed to provide practical help for those people who we expect to have the most difficulty in making the switch to digital TV. Help will include providing the necessary equipment to convert one television set. The equipment will be designed with the user's needs in mind. If necessary, the Scheme will also help with installation and use of equipment and provide an aerial replacement.

#### Who will be eligible for the Help Scheme?

People will be eligible if they meet the criteria below at any time during a minimum 9 month window, which will start 7 months before switchover commences in their TV region.

The Scheme will be offered to all households in which one person:

- is **aged 75 years or over**; or
- has a **significant disability** – that is, those in receipt of Disability Living Allowance or Attendance Allowance; or
- is **registered blind** or **partially sighted**

#### Will there be a charge for the Help Scheme?

There will be a £40 charge for the basic equipment and help, except where the qualifying person or partner is also in receipt of an income-related benefit (income support or income-based jobseeker's allowance) or pension credit (both guaranteed and savings credit in pension credit), when it will be free.

#### What equipment will be available under the Help Scheme?

All eligible households will be entitled to a choice of options for getting their digital TV services, depending on what platforms are available in each TV region.

Households will be able to choose:

- a terrestrial digital box provided by the scheme and, if required, help to install and use it;
- a digital television recorder or an integrated digital TV for an extra cost;
- a free satellite service;
- some money off a subscription service, such as Sky, Virgin Media or BT Vision

#### When will the Help Scheme become available?

As the Help Scheme is designed as a safety net for those people who really need help to switch, it will only become available in the months before switchover in each TV region.

## **How will people know about the Help Scheme?**

The Digital Switchover (Disclosure of Information) Bill currently going through Parliament will enable the Help Scheme to identify people who are eligible and to write to them directly inviting them to apply for help.

These personal communications will be accompanied by TV and other advertising and a programme of community outreach and practical support co-ordinated by Digital UK.

## **If my constituents move from one region to another, will they still be eligible for the Help Scheme?**

People can claim help only once. So if they move to an area which has not yet switched, they will not get help a second time. Similarly, if they move to an area which has already switched, they won't get help if the scheme has finished in that area. They can, however, take their digital box with them.

## **What protection will there be against con men?**

Where a home visit is necessary, only properly trained and vetted installers will provide help. They will not turn up unannounced or without an appointment and will carry ID with them. Any additional support for those who need support following a fitter's visit will be provided on a similar basis by recognised voluntary organisations.

## **How much will the Help Scheme cost and who will run it?**

The Help Scheme will be funded through the TV licence fee and estimated costs are around £603m. The Government expects the BBC will lead the delivery of the Scheme, although day-to-day operation will be contracted out. The procurement process to identify a contractor or contractors is currently underway.

## **What about people who do not qualify for the Help Scheme, but may still have problems with switchover?**

There will be people who are not eligible for the Help Scheme but who will still want some extra help through switchover. Digital UK is working with local charities, volunteer and consumer groups to determine who those people are, and to ensure that they know what to do. Digital UK is planning a programme of community outreach and practical support in conjunction with leading charities.

## Section 6

### What coverage and reception issues might my constituents encounter with digital terrestrial TV?

#### Will everyone who currently receives analogue TV be able to receive digital TV through their aerial after switchover?

98.5% of UK households are currently estimated to be capable of receiving a high quality and reliable analogue TV signal. These households get BBC1, BBC2, ITV and Channel 4 / S4C. Around 80% of households also get Five via an analogue signal.

Ofcom estimates that digital terrestrial TV coverage after switchover will match this – so 98.5% of UK households will be capable of getting a high quality and reliable digital TV signal. All of these households will get digital equivalents of the analogue channels they currently get. Five's availability will increase to 98.5%, and many more digital-only channels, such as BBC Three and Four, ITV 2 and 3, Film4 and BBC Parliament will become available for everyone who used to get analogue.

So, all households currently capable of receiving analogue television are expected to be able to receive digital terrestrial TV, provided their aerial is in reasonable condition and correctly installed.

#### What proportion of households will not be able to receive digital terrestrial television through their aerial?

1.5% – the same proportion of households who cannot get analogue TV today will not be able to get what is formally classified as a fully reliable digital TV signal. But this does not mean they won't be able to get digital terrestrial TV at all.

Currently, around 27% of UK households cannot receive digital terrestrial television. At switchover, the digital signal will be boosted to make use of the vacated analogue airwaves and this figure will fall to 1.5%.

#### Will those households not receive any digital terrestrial TV at all?

The effect of interference on digital TV reception is different from analogue (see next question). So, to be classified as high quality and reliable, the digital signal must be fully available for at least 99% of the time. This is a more stringent threshold than that used for analogue which need only be available for 95% of the time to be classified as high quality and reliable. At present, with coverage limited to around 73% of UK households, the experience of interference is more commonplace.

Of the 1.5% of UK households not estimated to be capable of getting a high quality and reliable digital TV signal, most (1.2% of UK households) will still be able to get it nearly all the time (between 95% and 99% of the time). In many cases the digital interference will be experienced at particular times of the year, so even many households officially designated as being outside reliable digital TV coverage areas may well get a perfectly good signal for long, uninterrupted periods.

The remaining 0.3% are unlikely to receive a usable digital terrestrial TV signal. Typically, these households are in the most remote parts of the UK and cannot presently get analogue TV. Many already receive TV via satellite.

## **What will my constituents' experience of digital interference be like?**

Most people's experience of digital interference will be very rare. We anticipate that nearly everyone will get a fully reliable signal for at least 99% of the time.

However, when digital interference does occur, it might result in blocking on the picture, picture freezing, bursts of noise or a loss of soundtrack. This is different to analogue interference, which tends to result in a snowy and shadowy picture, with sound interference and a loss of picture occurring during more serious disruption.

While the analogue signal tends to fade progressively as the signal weakens, digital TV will often go from minor disruption to a total loss in picture and soundtrack. Because of this, Ofcom has stipulated that to be regarded as high quality and reliable the digital signal has to be fully available for 99% of the time (see above) instead of 95% of the time as is required for the analogue signal.

This also means that people watching digital terrestrial TV today will receive a more reliable signal after switchover.

## **Will everyone be able to receive all the available digital terrestrial channels?**

TV channels are delivered in six packages called multiplexes. Three of the multiplexes carry digital equivalents of the four main public service analogue channels (BBC1, BBC2, ITV, Channel 4, and will soon include Five) plus digital TV channels like BBC Three and Four, ITV 2 and 3, and radio, text and interactive services. The coverage of these three multiplexes will be 98.5% of UK households, the same as the existing analogue signal, with a further 1.2% getting a mostly reliable service.

The other three multiplexes carry channels like Sky News, UK Gold and QVC. Ofcom estimates that 90% of UK households will receive these commercial multiplexes, as well as the public service broadcasters' three multiplexes. This will give viewers access to the full 30-plus channels currently available on digital terrestrial TV (plus radio, text and interactive services). Commercial multiplex coverage could increase if more transmitter sites than present were used, but this is a commercial decision for the multiplex operators.

A full list of the channels currently available on the public service and commercial multiplexes is enclosed in this pack.

## **What about people who receive television through a self-help relay transmitter?**

The self-help scheme, launched in 1980, aimed to assist those small communities who could not receive TV through the broadcasters' transmitter network. Self-help transmitters are mostly communally owned and operated. Ofcom is considering whether operators of existing self-help schemes should be allowed to convert their transmitters to digital, if they wish, and will make a statement in the summer.

## **Will switchover affect existing regional options for TV?**

In general, all of the existing regional choices available to viewers will be maintained at switchover.

However, there will be some small changes to the boundaries of some ITV and BBC regions to better align them with each other. These changes may affect the regional service carried by a small number of relay transmitter and are likely to occur before switchover is implemented in the region.

In addition, after switchover the pattern of overlapping transmitter coverage will change at the extremities and some viewers who are currently accessing a regional service well outside the normal accepted range, possibly for historic reasons, might find that service is no longer available. These viewers will find that a more appropriate regional service for their location is available from another transmitter.

### **Will my constituents encounter any problems with TV reception during the transition from analogue to digital?**

Provided households have an appropriate and correctly installed aerial connected to a digital tuner (either a digital box or an integrated digital TV) they should not experience major problems. Other than connecting up their digital equipment, the most that the majority of viewers will need to do is to get it to 're-scan' for new digital channels as they come on air, or as changes are made to the transmitters.

Digital switchover is, however, a major exercise involving every household in the UK. As the process of switchover progresses, viewers may experience temporary disruption to their terrestrial reception as essential engineering works are carried out at the transmitters. For practical reasons, some engineering work will need to be carried out several years before switchover actually occurs in a particular region and may result in breaks in service, increased levels of interference to both analogue and digital reception or, in a small number of cases, a complete loss of some television services for a period.

Although radio is not part of the process of digital switchover, some radio services may also temporarily experience disruption or periods of poor reception while engineering works are carried out on the television services.

Ofcom has put in place a code that provides the broadcasters with guidance on the priorities that it expects them to adopt during the switchover transition programme to protect viewers' reception so far as is practical. Although some degree of disruption is regrettably unavoidable, the broadcasters are working to minimise the impact of their engineering works, and are required to agree mitigation measures with Ofcom where it is expected to seriously affect viewers' reception.

### **What are the options for people who won't be able to get digital terrestrial television after switchover?**

Digital satellite is the most widely available option for those households who cannot receive digital terrestrial TV at switchover. These households are unlikely to be able to receive the analogue terrestrial services today and so are probably already using satellite services if they wish to watch television. Alternative platforms include cable and, in some areas, TV through broadband.

# Glossary

## Analogue signal

The broadcast signal which delivers just five (not including other services and regional variations) TV channels to your set via the aerial.

## TV region

The region covered by one of ITV's major regional services, like Border or Granada. The TV regions are defined by the transmission system. In each region this comprises one or two main transmitters, like Crystal Palace, and then a number of smaller relays which feed off the main transmitter.

## Digital signal

Television images are sent as compressed data which is then unscrambled by a digital box. The signal is sent by cable, satellite, broadband or via your aerial (Freeview).

## Digital box

Needed for converting existing analogue TVs to be able to receive digital TV – it unscrambles digital signals and turns them back into sound and pictures, sometimes known as a Freeview box. (Also see IDTV)

## Digital switchover

The process of switching over the UK's current analogue television broadcasting system to digital, as well as ensuring that people have adapted or upgraded their televisions and recording equipment to receive digital TV.

## Digital Television Recorder (DTR)

A digital receiver that is also able to record programmes to a hard drive, sometimes known as a PVR (Personal Video Recorder). A DTR with a built in digital box (tuner) will enable you to watch one programme while recording another, if the television receives its own digital signal.

## Digital Terrestrial Television (DTT)

DTT is transmitted through an aerial. In the UK this includes the Freeview service (which includes the terrestrial channels, BBC1, BBC2, ITV1, Channel 4 and Five) and, for an additional monthly subscription, Top Up TV.

## Freeview

The main UK DTT service that is transmitted through an aerial. No subscription is required.

## High Definition Television (HDTV)

HDTV is a new technology that will enable viewers to get higher definition television pictures. HDTV has four times as many pixels (dots on the screen) as standard TV broadcasts, meaning a clearer picture and detail on large-screen TVs. An HD-ready TV is not necessarily a digital TV.

## **Integrated Digital Television (IDTV)**

A TV with a built-in digital receiver which lets you receive digital terrestrial TV channels through your aerial with no need for an additional digital box.

## **Platform**

A term for the different options for accessing digital TV. There are four platforms for accessing digital TV: through an aerial (DTT), via cable, via satellite or through the internet.

## **Scart lead**

The best way to connect one TV product to another. It connects the picture and stereo sound in one 21-pin plug. Usually used to connect a television with a video or a digital box.

## **Spectrum**

The electromagnetic spectrum is the set of radio frequencies used to transmit television, radio and other forms of electronic communication.

## **VCR**

Video cassette recorder.

## Services available on digital terrestrial television as at March 2007

### The BBC, ITV & Channel 4 multiplexes

The TV and radio stations currently carried on these three multiplexes, which will be available to 98.5% of households after switchover, are listed below. The channel line-up does vary from time to time. For example, at switchover Five and S4C (Wales only) will be carried on these public service multiplexes.

TELEVISION	RADIO
BBC1	BBC Radio Scotland/Ulster/Wales
BBC2	BBC Radio n Gaidheal/Foyle/Cymru
BBC Three	U-105 (NI only)
CBBC	Heart
BBC News 24	Radio Music Shop
BBCi	1 Xtra
ITV 1	Radio 5 Live
Channel 4	BBC Five Live Sports Extra
ITV2	BBC 6 Music
ITV3	BBC 7
More4	BBC Asian Network
E4	Channel 4 Radio
ITV4	
Setanta Sports	
Film Four+1	
CITV	
Teletext, Teletext Holidays (Wales only), Teletext Cars, Teletext on 4	
BBC Four	
CBeebies	
BBC Parliament	
The Community Channel	
BBC Interactive	

## Other multiplexes

The TV and radio stations currently on the three other multiplexes are listed below.

After switchover, these multiplexes will be available to approximately 90% of UK households

TELEVISION	RADIO
S4C (Wales only)	BBC Radio 1
Five	BBC Radio 2
TeleG (Scotland only)	BBC Radio 3
ABC 1 (except Wales)	BBC Radio 4
QVC	Heat (except Wales)
UK Gold	MOJO (except Wales)
Bid TV	talkSPORT
Price-drop TV	3C
TCM	Premier Radio
UKTV Style	Virgin Radio
Setanta Sports	BBC World Service
Eurosport	The Hits Radio
Five US	Smash Hits!
Five Life	KISS
Top Up TV Anytime 1, 2 & 3	Magic
tvTVDIGITAL	Q
S4C2 (Wales only)	Oneword
Teachers' TV	Smooth FM
Television X	Kerrang
Red Hot (except Scotland)	
Sky Three	
UKTV History	
E4+1	
Smile TV	
Sky News	
Sky Sports News	
The Hits	
UKTV Bright Ideas	
Ftn	
TMF	
Ideal World	
Film4	
ITV2+1	
4TV Interactive	

## Notes



