



House of Commons  
Culture, Media and Sport  
Committee

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# **Analogue Switch-off:**

**A signal change in television**

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**Second Report of Session 2005–06**

*Volume I*





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## A signal change in television

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### Second Report of Session 2005–06

#### *Volume I*

#### *Report*

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## The Culture, Media and Sport Committee

The Culture, Media and Sport Committee is appointed by the House of Commons to examine the expenditure, administration, and policy of the Department for Culture, Media and Sport and its associated public bodies.

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# Contents

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<b>Report</b>	<i>Page</i>
<b>Summary</b>	<b>3</b>
<b>1 Introduction</b>	<b>5</b>
<b>2 Developments in television</b>	<b>7</b>
From analogue to digital in the UK	7
Digital switchover overseas	10
<b>3 Rationale for replacing analogue with digital</b>	<b>12</b>
Benefits of digital television	14
Content	14
Spectrum	17
Costs of digital switchover	20
Industry	20
Consumers	22
Cost-benefit analysis	23
Vulnerable groups	25
<b>4 Digital switchover in practice</b>	<b>29</b>
Project management	30
Transmitter works	32
Coverage	32
Reception	34
Planning	34
Implementation	35
Managing supply	36
Consumer information	38
Aerial installation	40
Supporting consumers	41
<b>Conclusions and recommendations</b>	<b>44</b>
<b>Formal minutes</b>	<b>48</b>
<b>Witnesses</b>	<b>49</b>
<b>List of written evidence in Volume II</b>	<b>50</b>
<b>List of unprinted written evidence</b>	<b>52</b>
<b>Reports from the Committee since 2006</b>	<b>53</b>



## Summary

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The digital revolution is happening faster than anyone would have predicted. Its benefits to consumers in terms of choice, performance and access to information and services are immense. So far, Britain has been in the vanguard of that change with digital penetration of households now reaching 70%. However, until now this has been achieved by choice rather than compulsion.

The Government has decided that, starting in 2008, analogue terrestrial television broadcasts will be taken off the air and all households will be required to switch over to digital. As they are, the radio spectrum thus released will be made available both to strengthen the signals of digital terrestrial television and to make way for, potentially, an exciting range of additional services. By 2012, the whole of the UK viewing public should be receiving television in digital form, whether by terrestrial broadcasts, satellite, cable or broadband. The advent of High Definition Television is widely, not to say eagerly, anticipated in many quarters. Local television services, mobile TV and the emergence of more interactive features all-round promise greater empowerment and engagement of all those enabled to benefit.

Digital terrestrial television makes more efficient use of scarce radio spectrum, offering more channels and interactive features. By turning off the analogue signal which currently competes for spectrum, it will be possible for digital terrestrial television to reach a similar proportion of a viewing population that has grown accustomed to free-to-air public service television. Some have argued that the conversion to digital should be allowed to continue to occur naturally, by choice rather than by compulsion. This would perhaps have been the easier political option. The Government is therefore to be commended on a bold decision which carries with it some risk.

Almost every household is likely to incur some costs. Those who still rely on conventional, analogue, broadcasts will lose access to television services unless they replace or convert at least some of their existing televisions and video cassette recorders. The vast majority of those who already have a digital receiver still have one or more analogue sets which will also need conversion. Some will need new aerials and cabling as well. A small number – estimated by Ofcom at a few thousand people – will lose access to terrestrial television, and they will have to move to an alternative platform: at present, only satellite television provides a free-to-air viewing option, once an initial outlay on equipment has been made.

Switching terrestrial television from analogue to digital will be a highly complex undertaking, requiring coordination and cooperation throughout the industry. Awareness and understanding of its implications and rationale is still limited among the general public.

Digital UK has been established by broadcasters and operators of the digital terrestrial television multiplexes to oversee the process. Probably the single most important task facing this compact organisation is communicating the oncoming transition to digital television, and its consequences. From an industry standpoint this will be necessary to manage, and drive up, demand for consumer electronic equipment, aerials and installation services.

An important opportunity also exists to encourage the spread of more sophisticated digital technology offering interactive services and additional facilities. This will be missed if too much emphasis is placed on the low cost of more basic equipment. The Government and Digital UK should make clear that the more advanced boxes and other digital platforms, including broadband, may offer significant additional benefits to individuals rather than simply focusing on the cheapest option. The decision as to what the released spectrum should be used for also needs to be made quickly. Transmitter conversion is about to begin and delay in determining future applications risks increasing costs and potentially making some options unviable.

Consumers must have independent and reliable information on their options in the new digital world. Many will need help with purchasing, installing and using unfamiliar equipment. They have a right to expect these services to be provided by reputable, accredited professionals. These considerations will be all the more germane in the context of people with disabilities, the elderly, the socially isolated and those in low income groups.

Others who stand to lose television services as a result of the Government's analogue switch-off policy will require additional advice and help if they are to avoid falling on the wrong side of the digital divide. More than any other group they will need to hear a robust case for the benefits of analogue switch-off in view of the disruption it is likely to cause them.

To achieve a smooth and successful outcome, a task of this complexity requires strong management, unambiguous attribution of responsibilities, co-ordination among all the industry stakeholders, and effective communication with customers, consumers and citizens. Clearly the Government must accept responsibility for the decision it has taken to commit to digital terrestrial television and its consequences. It must stand ready to defend both its timetable and the rights of those left vulnerable by analogue switch-off. To do so, there must be the clarity of leadership and accountability which should be left to a single identifiable Government minister to provide.

# 1 Introduction

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1. The Government's long-anticipated confirmation of the timetable for turning off analogue television broadcasts, and replacing them with digital ones, came on 15 September 2005. Over the period 2008 to 2012, on a region by region basis, households will lose access to television unless they convert to at least one of a variety of digital platforms. Speaking at the Royal Television Society, the Secretary of State for Culture, Media and Sport, Rt Hon Tessa Jowell MP, compared the immensity of the task to that of decimalisation and of North Sea Gas conversion: digital switchover will be highly complex and affect the vast majority of homes in the country.

2. We decided to conduct an inquiry into analogue switch-off, announcing its terms of reference on 19 July 2005. Evidence was invited on the following issues: the policy objectives and economic benefits of digital switchover, and the relative roles of the different platforms in the delivery of digital television; the feasibility of, and the steps needed towards achieving switchover to the Government's timetable and with sufficient geographical coverage; the costs associated with the digital switchover process and how these are to be met; and the protection of vulnerable groups in terms of financial and practical assistance. Altogether we received written submissions from around 60 organisations and individuals covering a wide range of consumer, industry and regulatory interests.

3. Six oral evidence sessions were held at the House of Commons between 8 November 2005 and 10 January 2006. The first session began with evidence from four analysts: David Elstein, Chris Goodall, Dr Jeremy Klein and Dr Andrew Wheen.<sup>1</sup> They identified a range of potential areas of concern, among them the effectiveness of the project management, as well as the policy and economic justification for the switchover process and timetable. The session ended with a focus on the interests of consumers, including those in vulnerable groups; the witnesses were Colette Bowe, Jocelyn Hay, Leen Petre and David Sinclair.<sup>2</sup>

4. The Government has assigned to the BBC a key role in digital switchover, and the Corporation gave oral evidence on 15 November 2005, represented by Caroline Thomson, Tim Davie and Graham Plumb.<sup>3</sup> The Committee also took evidence from Tim Jenks, Danny Churchill, Laurence Harrison and Adrian Northover-Smith, representing different arms of the supply side: manufacturers, retailers and installers.<sup>4</sup> Public service broadcasting formed a focus of the third evidence session with representatives from ITV (Clive Jones and Christy Swords),<sup>5</sup> Channel 4 (Andy Duncan and David Scott), S4C (Iona Jones and Arshad Rasul)<sup>6</sup> and Five (Jane Lighting, Grant Murray and Sue Robertson).<sup>7</sup>

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<sup>1</sup> Ev 15

<sup>2</sup> Ev 45

<sup>3</sup> Ev 62

<sup>4</sup> Ev 81

<sup>5</sup> Ev 90

<sup>6</sup> Ev 105

<sup>7</sup> Ev 114

5. Ofcom and Digital UK are two of the lead players in the Government's digital switchover programme. Ofcom has provided policy research and advice and has an ongoing role as communications regulator. It recommended the establishment of Switchco, now Digital UK – a body charged with implementing and marketing switchover policy. Both gave evidence on 13 December. Ofcom was represented by Stephen Carter, Ed Richards and Greg Bensberg;<sup>8</sup> Digital UK by Barry Cox, Ford Ennals and Mike Hughes.<sup>9</sup>

6. A common thread running through the witnesses giving evidence on 20 December was their association with different platforms for delivering digital television. The transmission companies, Arqiva and National Grid Wireless, will shoulder the task of physically installing digital equipment, and decommissioning analogue, on transmitter masts and relays. Their witnesses were Steve Holebrook and Alan Watson for Arqiva and Steven Marshall and John Ward for National Grid Wireless.<sup>10</sup> The main alternatives to this digital terrestrial platform are satellite and cable, though digital subscriber line (DSL) technologies are beginning to offer television down broadband telephone lines. Mike Darcey, Dawn Airey and Martin Le Jeune represented BSkyB, which offers free-to-view as well as pay satellite options.<sup>11</sup> Keith Monserrat (NTL) and Roger Lynch (Video Networks) spoke for broadband cable and DSL providers respectively.<sup>12</sup>

7. In the final evidence session, on 10 January 2006, the Government's position on digital switchover was represented by two Ministers: James Purnell MP, Minister for Creative Industries and Tourism, Department for Culture, Media and Sport; and Rt Hon Alun Michael MP, Minister of State for Industry and the Regions, Department of Trade and Industry.<sup>13</sup> Their evidence covered a wide range of issues including the high level policy justification for digital switchover, the oversight of the process and the proposed package of assistance for vulnerable individuals.

8. A complete change in terrestrial television broadcasting from analogue to digital first took place in the Berlin-Brandenburg region on 4 August 2003. The Committee visited Berlin on 29 November – 1 December 2005 to gain an overview of that successful switchover and an insight into the lessons available both from the similarities and differences with the UK situation. We held formal meetings with: Gerold Reichle, Dr Alexander Tettenborn, Rainer Wegner and Wolfgang Martin at the Federal Economics and Labour Ministry; Nawid Goudarzi and Heiko Nehse of Rundfunk Berlin-Brandenburg, a public broadcaster; and Dr Hans Hege, Director of the Media Authority for Berlin-Brandenburg. In its role as media regulator for the Berlin and Brandenburg *Länder*, the latter had ownership and overall responsibility for the switchover project and took steps to ensure that vulnerable people would not be disadvantaged.<sup>14</sup>

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<sup>8</sup> Ev 129

<sup>9</sup> Ev 156

<sup>10</sup> Ev 183

<sup>11</sup> Ev 206

<sup>12</sup> Ev 193

<sup>13</sup> Ev 235

<sup>14</sup> *Vulnerable consumers in switchover – Lessons from parallel experiences*, Andrew Stirling, Ofcom, 2004

9. The Committee's inquiry has also benefited from input from a variety of other sources. On 3 November 2005, the Chairman chaired a Westminster Media Forum Keynote Seminar: *Analogue Switch-off and New Digital Services*. He also visited the Arqiva transmitter facilities at Sandy Heath on 13 January 2006, which demonstrated the scale of the engineering task associated with switchover. The consumer standpoint was well-represented by dialogues the Chairman had with listeners on BBC Radio Four's *You and Yours* (16 January 2006).

## 2 Developments in television

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### From analogue to digital in the UK

10. For over half a century, television in the UK has been broadcast using radio waves to carry an analogue, or continuously varying, signal.<sup>15</sup> This period has seen improvements in picture resolution, the development of colour television and the introduction of more national channels, ending with Channel 5 (now known as Five). The one major transition that has so far been completed is that between 405-line transmissions in the VHF (very high frequency) region of the radio spectrum to 625-line UHF (ultra high frequency) transmissions. The introduction of the latter was prompted by the advent of a third channel (BBC Two) in 1964 and, later, by colour television. However, BBC One and ITV services continued to be available in 405-line format until 1985, when the last VHF transmitter was turned off. At this point only 15,000 homes were still dependent upon 405 lines.<sup>16</sup>

11. Five was launched in 1997 as the fifth public service terrestrial channel though, even to this day, only 78% of homes are able to receive its analogue service.<sup>17</sup> This arises from the necessity to separate different broadcast channels both in terms of radio frequency and geography if interference is to be avoided. Similar considerations led to some video recorders having to be retuned: ten million homes were visited over a nine month period, at a cost of £165 million. However, it turned out that only 2% of video recorders were ever affected by Channel Five's signals.<sup>18</sup>

12. Until 1998, all television services in the UK were transmitted and received in analogue, whether by cable, satellite or terrestrial broadcasts. By then, the cable and satellite platforms, with their greater bandwidth (information carrying capacity), were introducing viewers to multi-channel television. Now, most cable and all satellite television is transmitted in digital rather than analogue form. Digital terrestrial television was launched in November 1998, involving the installation of new transmitters at 80 sites. The development of digital broadcasting allows more efficient use of radio frequencies, thus enabling more or better services to be made available: more channels, more interactivity, and soon High Definition TV.<sup>19</sup>

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<sup>15</sup> Ev 334

<sup>16</sup> Q 1

<sup>17</sup> Ev 112

<sup>18</sup> Ev 12

<sup>19</sup> Ev 304

13. At present, 80 transmitter sites are able to deliver the whole digital terrestrial package to 73% of the population and the public service digital channels to 83%.<sup>20</sup> These differences arise from restrictions placed on some of the transmitters in some directions to avoid interference, resulting in some homes only being able to receive a subset of the six possible multiplexes (corresponding to frequency channels). Coverage cannot be increased significantly without switching off the analogue transmissions that compete for radio spectrum. Details of the television services available on each of the six licensed multiplexes have been provided by a written submission from Digital UK.<sup>21</sup> In addition to the free-to-air service, marketed as Freeview, the digital terrestrial television (DTT) platform provides television services available on subscription as Top-Up TV. Recently, ITV became, with Channel 4, a shareholder of Freeview; they join the original participants BBC, BSkyB and Crown Castle (now National Grid Wireless). According to Ofcom, around seven million homes currently receive DTT broadcasts.<sup>22</sup>

14. BSkyB's satellite platform has been entirely digital since 2001, and now serves around eight million households.<sup>23</sup> In addition to its pay-TV service BSkyB offers a "Freesat from Sky" service comprising 120 digital TV channels and 80 radio stations free-to-air. In principle, 98% of UK households can receive satellite television. BSkyB is a "strong supporter" of digital television, recognising that it offers "significant benefits to those consumers who wish to receive them". BSkyB's written evidence went on: "We are not convinced, however, that these and other claimed benefits are so great that everyone should be compelled to have them, at significant public and private cost, whether they want them or not."<sup>24</sup>

15. NTL is the UK's largest cable operator, passing some eight million homes and offering a "triple play" service of multi-channel TV, high speed broadband and telephony services. Following its recent merger with Telewest, it has become the largest provider of residential broadband services in the country, the second largest pay-TV provider (about 3.3 million subscribers)<sup>25</sup> and also the second largest fixed telephony provider.<sup>26</sup> The merger paves the way for new product offerings such as High Definition Television, video-on-demand and VoIP<sup>27</sup> (internet telephony). NTL's written evidence acknowledged that a gradual migration to digital broadcasting is a sensible policy objective, given that spectrum is a valuable asset.<sup>28</sup>

16. A fourth system for delivering digital television deploys digital subscriber line (DSL) technology, using existing copper-wire telephony networks. There are two service providers in the UK: Kingston Interactive Television and Homechoice. The latter is provided to nearly 40,000 subscribers, at present in London, by Video Networks Limited.

<sup>20</sup> Ev 152

<sup>21</sup> Ev 150

<sup>22</sup> *Digital Television Update Q3 2005*, Ofcom, 9 December 2005

<sup>23</sup> Ev 201

<sup>24</sup> *ibid.*

<sup>25</sup> *Digital Television Update Q3 2005*, Ofcom, 9 December 2005

<sup>26</sup> "Creation of a cable giant", *broadcastnow.co.uk*, 6 October 2005

<sup>27</sup> voice over internet protocol

<sup>28</sup> Ev 189

Homechoice bundles together a package of broadband, multi-channel TV, video on demand and (where desired) telephony in an interactive environment that allows for a substantial amount of personalisation – users can set up their own play list of music videos for example. Homechoice’s written evidence<sup>29</sup> referred to its expansion plans and the greater functionality of its system, in contrast to the limitations of Freeview and its “legacy decoder technology” (MPEG-2).<sup>30</sup>

17. Both NTL and Video Networks point to the role they could play in building “digital Britain”. Video Networks believes that the focus purely on digital broadcast TV is a mistake: “The issue of analogue switch-off should be tightly linked to the Government’s drive towards all households having broadband access by 2008.”<sup>31</sup> NTL believes that “the greatest risk to the switchover initiative is a lack of ambition.”<sup>32</sup> Both platforms rightly claim to offer a more interactive environment than either DTT or satellite. Across all platforms, 66% of UK households were receiving digital TV services as at 30 September 2005.<sup>33</sup>

18. The relevance of satellite, cable and DSL platforms to the digital switchover programme lies partly in their ability to mitigate the adverse consequences of switching off analogue TV. Clearly the more people who have access to digital TV supplied by other platforms, then the smaller the number who will stand to lose television when conventional analogue broadcasts cease.

19. As noted earlier, the Government has confirmed plans to complete UK switchover to digital terrestrial television by 2012. The process is set to take place in stages, with areas based on individual ITV regions turning off their analogue broadcasts, beginning with the Border region in 2008 and ending with Tyne Tees and Ulster in 2012. Ofcom’s written evidence summarises the full timetable for every ITV region in tabular form.<sup>34</sup> A conversion date has still to be confirmed for the Channel Islands, though 2013 seems likely.<sup>35</sup>

20. The Voice of the Listener and Viewer (VLV) began its written submission by quoting from a speech given in September 1999 by the then Secretary of State for Culture, Media and Sport, Chris Smith: “The digital revolution has the potential to bring immense benefits, but I am determined that the interests of the consumer and viewer must take priority in determining the timetable for the switch over from analogue to digital.” By setting a completion date of 2012 for switchover the Government, VLV argued, has

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<sup>29</sup> Ev 191

<sup>30</sup> MPEG-2, developed by the Moving Picture Experts Group, is a technical standard for compressing data in digital transmissions. A newer, more efficient, standard is MPEG-4.

<sup>31</sup> Ev 191

<sup>32</sup> Ev 190

<sup>33</sup> *Digital Television Update Q3 2005*, Ofcom, 9 December 2005. (Figures published by Ofcom on 17 March 2006 suggest that digital penetration has now exceeded 70% of UK homes.)

<sup>34</sup> Ev 123

<sup>35</sup> Ev 59

changed its digitalisation policy from one which was viewer-led to one which compels viewers to pre-determined dates.<sup>36</sup>

21. Written evidence from Channel 4 took the view that the industry is substantially embarked on implementation of the Government's switchover policy and that the focus should be on achieving this.<sup>37</sup> For ITV, Clive Jones commented: "Digital is inevitable ... digital switchover is now going to happen."<sup>38</sup> And Danny Churchill of the electrical retail group DSG International told us: "Virtually every consumer product has gone digital and the analogue has almost disappeared. We are still going through it with photography, perhaps, but audio we have gone through twice: we have changed everybody from vinyl to CD and now we are changing them to MP3. As we go through it, the old technology goes, it is as simple as that, and we are now looking at television. Under its own steam, without any switchover pressures, we are selling digital equipment into the marketplace quite effectively..."<sup>39</sup>

**22. The case for switching off the analogue signal grows stronger as more and more convert to digital. No-one would dispute that it would be wasteful to go on indefinitely using large amounts of valuable spectrum for analogue television when the number of viewers is steadily shrinking. However, the case for forcing the pace by starting the switch-off process when a sizeable number are still choosing to stay with analogue is more controversial and potentially risky. The Government should therefore be commended for a bold decision to proceed with complete analogue switch-off by 2012. All attention must now focus on ensuring that switchover takes place with the minimum cost and disruption. We must also ensure that the opportunities that it will present for a whole new range of digital services are exploited to the full.**

## Digital switchover overseas

23. Written evidence from Digital UK explained the importance of understanding switchover plans in other countries.<sup>40</sup> Although the EU has no powers to compel switchover in Member States, there are European Commission communications on the subject.<sup>41</sup> In particular, the Commission recommended in May 2005 that Member States phase out analogue terrestrial broadcasting by 2012. This ties in with a vision of an information society based on converging media services, networks and devices.<sup>42</sup> International comparisons can provide lessons to guide policy development, practical implementation methods and communications strategies, all in the light of consumer feedback.

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<sup>36</sup> Ev 29-36

<sup>37</sup> Ev 97-102

<sup>38</sup> Q 210

<sup>39</sup> Q 156

<sup>40</sup> Ev 164

<sup>41</sup> *Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions on accelerating the transition from analogue to digital broadcasting*, COM(2005) 204 final, 24 May 2005

<sup>42</sup> Ev 316

24. Germany provided the first example of analogue switch-off anywhere in the world, when Berlin-Brandenburg completed the process in August 2003. Now, 50% of the German population has had all terrestrial analogue signals switched off and the rest of the country seems set to be converted to digital by 2010. In fact, the public broadcasters only intend to achieve 90% population coverage for DTT, which is considered acceptable in view of the fact that much of the population already uses either cable or satellite television. Furthermore, frequencies for terrestrial broadcasting in Germany are relatively scarce, making it impractical to have a lengthy period during which analogue and digital are broadcast simultaneously (simulcast). The process then involves introducing digital terrestrial services in individual regions only shortly before analogue switch-off. In Berlin, the analogue terrestrial channels were switched off in two stages: commercial channels first, followed by the public broadcasters six months later. This transition period was reduced to three months for the staggered channel switch-off in subsequent regions.

25. Another important feature in Berlin-Brandenburg was the subsidies provided to aid switchover. The commercial broadcasters were given a multiplex and MABB<sup>43</sup> agreed to pay about 30% of the digital transmission costs over a period of five years. This subsidy was subsequently adjudged by the European Commission to constitute illegal state aid because of its distorting effect on competition.<sup>44</sup> The Commission has been content, however, to allow another subsidy: set-top boxes were distributed to some 6,000 low-income households (with falling prices for set-top boxes, subsequent *Länder* have not provided analogous subsidies).

26. According to Digital UK, the German experience provides a number of key positive lessons. First, a regional approach to switchover helps to minimise potential logistical problems with regard either to managing demand for consumer equipment or for securing adequate resources for converting terrestrial transmission masts. Second, a staggered switch-off of television stations within a given region allows viewers to acquire and test their digital receiving equipment before losing all analogue broadcasts. An essential element of Berlin's preparations was a cooperative approach to the switchover project among broadcasters, transmission companies, manufacturers, retailers, consumer groups and government agencies. Finally, raising public awareness in the run-up to switchover and providing advice and practical assistance with new equipment are all seen as important.

27. The importance of terrestrial television in Italy and Spain indicates their utility as sources of comparative information. So far, there are relatively few digital terrestrial households in Spain, though the state broadcaster, RTVE, hopes to be able to cover 98% of the population by the time of the proposed analogue switch-off in 2010. Italy, with 13% of households already receiving digital terrestrial television, is aiming for a final coverage figure of approximately 90%, with the possible use of satellite elsewhere.<sup>45</sup> Italian policy is also marked by the availability of a direct subsidy to consumers to purchase set-top boxes which have an internet function and are thus supportive of e-government development.<sup>46</sup>

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<sup>43</sup> Media Authority for Berlin-Brandenburg

<sup>44</sup> European Commission press release IP/05/1394, 9 November 2005

<sup>45</sup> Ev 316

<sup>46</sup> Ev 327-8

28. Italy has set a particularly ambitious target, likely to be missed, for digital switchover: 2006. This is all the more ambitious a date when one considers that the Italian analogue terrestrial transmission network has approximately 12,000 transmitters to convert, about the same as France but many more than the UK. Detailed information on European switchover plans has been provided in written evidence by Digital UK.<sup>47</sup> France has yet to confirm a switchover date though 2010 is anticipated – depending on the take-up of receiving equipment. The Oxford University Programme in Comparative Media Law and Policy noted that the UK in comparison leads the world in digital take-up (across all platforms) and commented: “It is in a far more advanced position than the other major countries where terrestrial has a major role – Japan, Spain, Italy and France – and has been prudent in choosing a later completion date.”<sup>48</sup>

### 3 Rationale for replacing analogue with digital

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29. Written evidence from the DCMS and DTI began with an overview of the case for digital switchover. The following benefits were identified: greater choice of TV services; widescreen pictures; more robust technical quality; and interactive features such as home shopping, banking, e-mail and internet access. While these advantages are undeniable, they are already available to anyone who wants them and therefore do not in themselves constitute reasons for denying choice to those who do not. The main justification therefore that has been advanced for switch-off is to extend the availability of digital terrestrial television to the whole population, including boosting the signal for better quality reception by those who are already receiving it. Further justification comes from the cost of simulcasting in analogue and digital and the economic value associated with more efficient use of radio spectrum.

30. The Government claims that switching terrestrial broadcasts over to digital will benefit the UK economy by between £1.1 billion and £2.2 billion, in net present value terms.<sup>49</sup> These figures, published in an updated cost-benefit analysis report in February 2005, merit close scrutiny. These have been called into question by a number of commentators,<sup>50</sup> and we examine this in more detail later.<sup>51</sup> One possibility is that the calculations may have granted inadequate weight to the social costs associated with switchover.

31. In 1999, the Government had confirmed an aspiration to complete digital switchover, a process by then underway, subject to two “key criteria”: availability and affordability. On 17 September 1999 the then Secretary of State, Chris Smith, delivered a speech to the Royal Television Society which provided elaboration on these criteria. He stated that the main

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<sup>47</sup> Ev 165

<sup>48</sup> Ev 332

<sup>49</sup> Net present value expresses future costs and benefits as a single monetary value by taking into account real interest rates.

<sup>50</sup> Ev 1

<sup>51</sup> see paragraphs 75 to 79

free-to-air channels reached virtually everyone in the UK, 99.4% being the conventional figure. In a Westminster Hall debate on 5 July 2005, the present Minister, James Purnell MP, said that, taking into account technical definitions of what it means to receive television, the Government now has a coverage guarantee of 98.5%.<sup>52</sup> However, this is not the same as saying that the same 98.5% will be covered by digital signals as presently receive analogue.

32. On affordability Chris Smith said: “What does 'affordable' mean in this context? It means prices which are within the reach of people on low and fixed incomes, particularly elderly people”. One key measure of progress to set alongside the affordability test would be, he suggested, the degree of take-up of digital equipment in households. “But I want to make sure that 95% of consumers have access to digital equipment before switchover is completed.” In oral evidence to the Committee’s inquiry, Dr Jeremy Klein of Scientific Generics said: “the issue of affordability seems to have got lost, and we must not forget, I think, that for some people £25 is a lot of money. That sector of the population seems to have got lost in the deliberations so far.”<sup>53</sup>

33. The Government’s written evidence referred to work by the joint Government/Industry Digital TV Project between 2001 and 2004 that concluded the market alone would not produce digital switchover to a degree that would allow the analogue signals to be turned off. A carefully managed transition strategy would be needed. Dr Klein suggested that some 20% of the population would not convert at least one TV unless a managed mechanism was put in place.<sup>54</sup> Setting a switchover timetable was one way of prompting the market for digital equipment.

34. According to Dr Klein, the public would understand the inevitability of analogue switch-off, though they would want to see a “properly made public interest case”.<sup>55</sup> Like other witnesses he saw the “coercion” involved as being a problem. Several written submissions and witnesses in oral evidence commented on the compulsion involved in the Government’s present digital switchover policy. Evidence from the Voice of the Listener and Viewer noted the switch in emphasis from a policy led by consumer choice and the market to one determined more by industry and central policy.<sup>56</sup> David Elstein said that analogue switch-off should be a consequence of digital switchover, not a precondition of it.<sup>57</sup>

**35. The Government and Digital UK should do far more to explain to the public why they have chosen to proceed with analogue switch-off now, what options are available to people and on whom the costs and benefits will fall. This is all the more important in view of the element of compulsion that has been introduced.**

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<sup>52</sup> HC Deb 5 July 2005 c 58WH

<sup>53</sup> Q 1

<sup>54</sup> Q 8

<sup>55</sup> Q 1

<sup>56</sup> Ev 32

<sup>57</sup> Q 1

## Benefits of digital television

### Content

36. The main benefits associated with the move to digital terrestrial television are more channels and the release of radio spectrum from switching off the analogue signals. Providing free-to-air multi-channel television has been seen as a key driver for digital switchover in many European countries such as the UK with a history of public service television delivered predominantly by terrestrial broadcasts. In oral evidence, Chris Goodall saw the limited number of extra channels as being the only significant benefit of switching terrestrial broadcasting over to digital. David Elstein saw “no consumer benefit at all” in extending DTT and, like Dr Andrew Wheen of Mentor, saw the satellite platform as providing a better means of extending the availability of digital television.<sup>58</sup>

37. In written evidence, Five pointed to the demonstrated appeal of Freeview – an offering which is free-to-air and with a channel portfolio measured in dozens rather than hundreds.<sup>59</sup> This echoed sentiments expressed by Dr Jeremy Klein in the first evidence session of the inquiry.<sup>60</sup> In their written evidence, the Voice of the Listener and Viewer cited the main benefit of digital television as being the increased choice of television channels – at a cost. VLV doubted whether this brings about increased programme choice, the reduction in ITV’s regional programming being one concrete example, together with a more subjective assessment that minority tastes are being less well catered for.<sup>61</sup>

38. Channel 4’s written evidence also commented on content, referring to the “inevitable decline in the public service contribution of Five and ITV”.<sup>62</sup> It styled Five’s contribution as relatively small-scale. Of the public service broadcasters, Five has fewest obligations imposed upon it. Specifically it is required under the umbrella of the Communications Act to carry news and current affairs programming and it has imposed on it quotas on independent, original and regional production.

39. Channel 4 supports the policy of digital switchover on the grounds that it offers greater consumer choice, more efficient allocation of scarce spectrum and the release of analogue spectrum that could be used both for commercial applications and in support of public policy objectives. However, the Channel’s written evidence makes clear that the broadcaster is “extremely concerned” about the ways in which switchover could affect its long-term future and its ability to meet its public service remit. The concern comes from the loss of the “implicit subsidy” associated with a cost-free allocation of analogue spectrum. Channel 4 contrasts its position with that of the BBC with its secure licence-fee funding and with the concessions made by Ofcom to ITV and Five, both of which have seen reductions in their broadcasting licence payments. S4C benefits from a hybrid funding model, comprising grant-in-aid from the DCMS as well as advertising income; it sees digital switchover as providing opportunities for extended Welsh language

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<sup>58</sup> QQ 1-2

<sup>59</sup> Ev 113

<sup>60</sup> Q 2

<sup>61</sup> Ev 29-36

<sup>62</sup> Ev 101

programming as well as facilitating the conversion of second TV sets – an important issue in mixed language homes in Wales.<sup>63</sup>

40. In oral evidence (on 8 June 2004) to the previous Committee’s inquiry on the BBC’s Charter review, ITV’s chief executive Charles Allen said: “I think it would be wrong for the BBC only to be the provider of public service broadcasting. I believe pretty passionately that ITV has a role to play, Channel 4 has a role to play and Channel 5 has a role to play and I think it would be wrong to see the BBC as the sole provider of public service broadcasting. Frankly, a multiplicity of supply of public service broadcasting has to be the model going forward.” Speaking to this Committee’s inquiry, ITV’s Clive Jones said: “Our spectrum charges have fallen - they were many hundreds of millions of pounds - but they are still £80 million a year. We are still paying considerable sums. But our public service broadcasting commitments are costing us around £250 million a year - that is, national news, regional news, arts, religions, documentaries, current affairs. Let me make it absolutely clear, we wish to remain a public service broadcaster, but there is a dilemma going forward.”<sup>64</sup> He went on to call for an urgent debate about the provision of public service broadcasting. There is no shortage of material available with which to inform any such debate: the Government’s recent review of the BBC’s Charter<sup>65</sup> and Ofcom’s review of public service television<sup>66</sup> providing but two examples.

41. In addition to greater numbers of television channels, digital terrestrial has the capability to offer some interactive features, but is more limited in this respect than alternative platforms such as cable and satellite. The differing functionalities of the four platforms, particularly in the levels of interactivity they offer, tie in with questions that go beyond the immediate concerns of analogue switch-off: to the broader project of enabling an information society with services provided by computers or digital televisions. In his evidence, Roger Lynch of Video Networks Ltd described Freeview as a very basic service. He went on: “we are concerned that there is a big bias towards promoting Freeview, which is again the lowest common denominator when it comes to digital broadcasting”.<sup>67</sup>

42. Jocelyn Hay on behalf of Voice of the Listener and Viewer also expressed concern that people would opt for the cheapest boxes offering limited functionality. She said: “Our fear in VLV about future boxes is that there is going to be a big divide between the cheapest boxes and the most sophisticated boxes. I think there is a huge danger there that a large swathe of people, particularly the most vulnerable, will either be given or acquire the cheapest boxes which will have very, very limited functionality”.<sup>68</sup>

**43. We share the concern that by emphasising the low cost of set-top boxes in an effort to persuade people that switch-off will be relatively inexpensive, the Government risks missing an opportunity to encourage the take-up of more sophisticated digital technology offering interactive services and additional facilities. The Government and**

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<sup>63</sup> Q 219, Q 220

<sup>64</sup> Q 197

<sup>65</sup> *Review of the BBC’s Royal Charter*, DCMS, December 2003 et seq

<sup>66</sup> *The Ofcom Review of Public Service Broadcasting (PSB) Television*, Ofcom, October 2003 et seq

<sup>67</sup> Q 424

<sup>68</sup> Q 63

**Digital UK should make clear that the more advanced boxes and other digital platforms, including broadband, may offer significant additional benefits rather than simply focusing on the cheapest option.**

44. In September 2005, the BBC and ITV announced a joint venture to launch a free-to-view “Freesat” service to rival BSkyB’s existing service.<sup>69</sup> Written evidence from the BBC attempts to justify its proposed foray, with ITV, into a Freesat platform in terms of “the desirability of an easily and widely available digital satellite option, which was clearly free to air, not linked to any perceived pressure to subscribe, and marketed as such.”<sup>70</sup> Furthermore, “Freesat from Sky requires a viewing card to decode ITV1, Channel 4 and Five (which are currently still encrypted) and BSkyB has no obligation to continue to make viewing cards available to non-subscribers.” While BSkyB’s business model is primarily based on subscription television, we were reassured by Mike Darcey’s statement that “Freesat from Sky” would continue, with only occasional small payments for conditional access cards.<sup>71</sup>

45. Both Help the Aged and VLV support the decision of the BBC and ITV to launch a free-to-view satellite service. VLV in particular has campaigned for public service broadcasters to commit to a Freesat service, partly to provide access to those areas not currently covered by Freeview and to reduce the pressure for switching off the analogue terrestrial broadcasts.

46. The BBC/ITV Freesat platform would also provide competition and, potentially, lower prices. Satellite TV could also provide a service to those individuals who, on terrestrial switchover (from analogue to digital), would be faced with the prospect of having television services withdrawn.<sup>72</sup> Neither Channel 4 nor Five have joined the BBC/ITV Freesat proposition, inhibited by, respectively, contractual<sup>73</sup> and intellectual property rights<sup>74</sup> issues. The latter are tied in very closely with the creation of content<sup>75</sup> and, as such, will merit further examination by this Committee.

47. Satellite transmission does not suffer from the same capacity constraints as terrestrial broadcasting and is therefore more suited to future spectrum hungry applications like High Definition TV. If another free-to-air satellite service becomes available, this considerably diminishes the argument for a universal free-to-air digital terrestrial service and in the longer term, if it achieves wide take-up, may lead to a further debate as to whether there may not be better uses for the spectrum occupied by DTT. The outcome of such a debate will depend on the emergence of, and demand for, innovative applications in communications technologies on all platforms.

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<sup>69</sup> Ev 265

<sup>70</sup> Ev 60

<sup>71</sup> Q 496

<sup>72</sup> Q 67

<sup>73</sup> Q 238

<sup>74</sup> Q 274

<sup>75</sup> Ev 263, 288

**48. We support the proposed development by the BBC and ITV of a free-to-view satellite platform, which should carry all the public service channels, since it will extend choice and offer more services than is possible through digital terrestrial transmission.**

### **Spectrum**

49. When the analogue signal is switched off, 14 channels of radio spectrum are expected to become completely clear in the UK and available for new uses. Other channels will be available for use over more limited geographical areas (the so-called interleaved spectrum). In written evidence to the Committee, the transmission company Arqiva commented that a lack of definitive action on the re-use of spectrum may weaken the UK's negotiating position with its European neighbours: "Obviously relinquishing the UK's analogue spectrum for use in other countries is not in the UK's national interest."<sup>76</sup> Arqiva went on to recommend that "As other national spectrum administrators have done, Ofcom should consult as soon as possible on the potential innovative uses of the digital dividend (including mobile TV)." According to the transmission companies, industry needs greater certainty about possible uses of released spectrum so that these can be factored in to the digital switchover engineering works – beginning in the Border region in 2006. As Steve Holebrook, Managing Director of Arqiva told us: "What we do not want to do is do the engineering work and then have to do re-engineering of the engineering work". In order to avoid this, it will require decisions to be taken about the future use of released spectrum as soon as possible.<sup>77</sup>

50. Ofcom subsequently launched its digital dividend review on 17 November 2005;<sup>78</sup> this will examine the options arising from the release of spectrum afforded by the digital switchover programme. Ofcom notes that some of the options include: new mobile services, with high quality video and interactive media delivered to handheld devices; wireless broadband services, with high-speed data and voice services; wider coverage for advanced services in remote and rural areas; advanced business and broadcasting services, such as those used to support major sporting events; additional television channels including possible High Definition (HD) channels carried on Freeview. Under the review's proposed timetable the consultation will not be completed until the fourth quarter of 2006<sup>79</sup> – after the outcome of the Regional Radio Conference (RRC) to be hosted by the International Telecommunication Union in Geneva from 15 May to 16 June 2006. The RRC will deal with the planning of the digital terrestrial broadcasting service in "Region 1" (which includes Europe, Africa and large parts of Asia).<sup>80</sup> Ofcom's written evidence noted that maximising the benefits of switchover is indeed dependent on, among other things, securing the necessary international clearances. So far as the uses of the released spectrum are concerned, Ofcom expects to take a market-based approach to determine who uses the spectrum and for what technologies and services.

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<sup>76</sup> Ev 177

<sup>77</sup> Q 415, Ev 177

<sup>78</sup> *The Ofcom Digital Dividend Review (DDR)*, Ofcom, 17 November 2005

<sup>79</sup> <http://www.ofcom.org.uk/radiocomms/ddr/documents/ddroverview/#content> (as at 13 March 2006)

<sup>80</sup> <http://life.itu.int/radioclub/image/regmap.gif> and ITU Circular Letter No. 59 of 11 May 2005

51. Switching off analogue terrestrial transmissions will allow the six existing DTT multiplexes to be transferred onto frequencies currently used for analogue and cleared internationally for higher power. According to a spectrum plan developed by Ofcom and the broadcasters, these six multiplexes should be accommodated in no more than 32 frequency channels, releasing at least 14 channels nationwide for reuse. The Government's written evidence notes that switchover will also provide an opportunity for new services such as local television. A footnote to the DCMS/DTI written submission commented: "Whilst the international agreements permit the primary use of the UHF spectrum for broadcasting only, this spectrum is capable of being used for a range of other uses including mobile communications and wireless broadband."<sup>81</sup> It may be noted at this point that the broadcasting of radio is less constrained by spectrum than television; analogue radio switch-off is unlikely in the near future.

52. Channel 4's evidence suggests a number of possible public policy objectives that the release of analogue spectrum could allow for. These include new public service channels, High Definition TV, interactive services and regional and local television.<sup>82</sup>

53. The Institute of Local Television has written to the Committee, putting the case for local public service television. This could exploit so-called "add/drop technology"<sup>83</sup> to make available TV channels local and unique to each main transmitter site. Effectively this would provide television at a local authority scale. Over time, IPTV<sup>84</sup> (television over the internet) might provide an alternative technology, though universal provision may be compromised, a point made in written evidence by City Broadcasting.<sup>85</sup> This television consultancy company is also concerned about the future of existing holders of short-term analogue licences for local TV services. A recent Ofcom report is designed to stimulate further debate on the options for the development of local television.<sup>86</sup> During oral evidence, the chief executive, Stephen Carter, acknowledged this as a "very live" issue that Ofcom would wish to consult on during 2006.<sup>87</sup>

**54. We welcome the development of local television and the potential it offers to provide a valuable community service. We would hope that the opportunity offered by analogue switch-off will be seized to allow the establishment of local television services.**

55. During oral evidence on 15 November, the BBC's Caroline Thomson suggested that all the existing public service broadcasters should eventually end up broadcasting in High Definition TV on the DTT platform.<sup>88</sup> The BBC's written evidence stated that, for High

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<sup>81</sup> Ev 227

<sup>82</sup> *The economics of delivering local digital audio-visual and interactive services*, Ofcom and DCMS, 18 November 2005

<sup>83</sup> Ev 256 (Add/drop technology involves removing, or dropping, a single digital channel from a multiplex, enabling a new channel to be added in its place).

<sup>84</sup> internet protocol television

<sup>85</sup> Ev 316

<sup>86</sup> *Digital Local: Options for the future of local video content and interactive services*, Ofcom, 19 January 2006

<sup>87</sup> Q 331

<sup>88</sup> QQ 116-9

Definition TV to be attractive, the portfolio would have to comprise at least the five main public service channels: BBC One, BBC Two, ITV 1, Channel 4, and Five.<sup>89</sup>

56. High Definition TV provides over four times the picture resolution of standard definition services but is “spectrum-hungry”. Using the MPEG-2 data compression standard currently in use, only two HDTV services could typically be carried within a single multiplex, compared with up to ten standard definition channels.<sup>90</sup> It is noteworthy that while French free-to-view services use this standard, a more advanced compression system, MPEG-4, will be used for pay-TV services.<sup>91</sup> The latter standard makes more efficient use of spectrum and is thus better suited to HDTV, but will require new set-top boxes to be brought to market, and the replacement of old ones based on MPEG-2.

57. We also received evidence putting the case for mobile telephony and television as uses of the newly released spectrum. Arqiva’s research, notably a consumer trial with O<sub>2</sub>, suggests that mobile TV would prove to be very popular and could develop into an industry worth more than £2 billion in the UK. Written evidence from O<sub>2</sub> argued for the release of relevant spectrum in advance of the 2006 Regional Radio Conference, so that commercialisation of mobile TV could be facilitated.<sup>92</sup> Arqiva claims that the “lengthy decision process” associated with Ofcom’s digital dividend review “will jeopardise” the UK’s present lead in the relevant technologies.<sup>93</sup>

**58. There are a wide range of different possible uses for released spectrum which also involve different engineering requirements. We recommend that in coming to a decision on the deployment of released spectrum, Ofcom takes full account of both social and economic benefits. We are concerned at suggestions that delay in reaching decisions may affect the economics of some potential applications and would therefore hope that this process can be carried out as expeditiously as possible to give certainty to all the industries affected and to give time to the transmission companies to carry out the necessary work as part of the switch-off programme.**

59. Quite apart from more content and more efficient use of spectrum, other benefits would accrue from analogue switch-off. The broadcasters would avoid the expense of having to simulcast in digital and analogue.<sup>94</sup> Furthermore, David Elstein pointed out that commercial terrestrial broadcasters have an increased audience share (and hence advertising revenue) on the DTT platform due to its lower channel capacity compared to other platforms, and therefore benefit from any extension of its coverage.<sup>95</sup>

60. In written evidence, Channel 4 acknowledged that its viewing share is inevitably much higher in five-channel analogue homes (about 13% share) than it is in digital TV homes.<sup>96</sup>

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<sup>89</sup> Ev 61

<sup>90</sup> Ev 304

<sup>91</sup> Ev 329

<sup>92</sup> Ev 302

<sup>93</sup> Ev 338

<sup>94</sup> Q 9

<sup>95</sup> Q 1

<sup>96</sup> Ev 97-102

In digital terrestrial homes, Channel 4's audience share is about 10%, which compares favourably with the lower viewing figures (nearer 7%) in satellite/cable homes.

61. Digital switchover will provide Channel 4 with opportunities to develop a portfolio of digital channels and to extend its public service remit across a range of platforms. The broadcaster's evidence could be characterised as comprising a combination of enthusiasm for the opportunities switchover offers and a foreboding about the viability of analogue-based funding models in the digital age.

62. Five's perspective on digital switchover is informed by the opportunities it offers the broadcaster to achieve (near) universal coverage. To some degree this offsets the threat of fragmenting audiences which faces Five and other public service broadcasters. Today, 78% of homes can receive Five's analogue signal though, thanks to the ongoing digital switchover process, over 93% of the population (Five estimates) can receive the channel in their homes. However, as noted in its written evidence,<sup>97</sup> Five will not be available on the same number of actual television sets as the other main channels until switchover is complete: because a third of the population has yet to switch any TVs to digital, and because many digital households have secondary sets still to be converted. DTT provides a relatively easy way of converting secondary sets, though at some cost to portability.

63. Digital switchover will also benefit the supply side industry in a number of ways. First, it is providing a large, Europe-wide, market for digital equipment and installation services. Evidence from the Confederation of Aerial Industries Ltd referred to the considerable increase in the value of the UK TV aerial industry attendant on the launch of digital services.<sup>98</sup> Second, the mass take-up of digital equipment can act as a spur for research and development on new services and devices, helping to maintain the UK's technological position.

## Costs of digital switchover

### Industry

64. For DTT to "substantially replicate reliable analogue reception" (as the BBC puts it) a new high-power transmitter network must be built. This will come at a cost to the broadcasters, though this will be offset in a number of ways: some analogue transmitters might be nearing the end of their operational lives and would have had to be replaced anyway. In written evidence, Arqiva<sup>99</sup> and National Grid Wireless<sup>100</sup> estimated that the capital cost for re-engineering the existing TV network for DTT will be approximately £500 million. This work will involve 1,154 current analogue sites together with some new sites that may need constructing, especially on the south coast. Written evidence from TrinityStar Associates attributed 80% of this cost to the conversion of the first 200 stations.<sup>101</sup> Converting the remainder, many of which are small relays, would involve a

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<sup>97</sup> Ev 112-3

<sup>98</sup> Ev 73

<sup>99</sup> Ev 176

<sup>100</sup> Ev 182

<sup>101</sup> Ev 336

marginal cost of no more than £75 per head – similar to the cost of installing satellite receiving equipment or, for that matter, of decommissioning a relay site and returning it to greenfield status. Similar points were made by the BBC during oral evidence.<sup>102</sup>

65. The lack of detailed publicly available information inevitably means that such estimates are open to dispute. BSkyB noted that the 80 transmitters already kitted out for digital could cover between 93% and 95% of households once their signals can be strengthened following analogue switch-off. BSkyB considers it wasteful that the Government's proposals see a conversion of all 1,154 analogue transmitter sites to digital and that it would at best be cost-effective to convert between 200 and 500, beyond which the cost per household of converting additional transmitters exceeds the costs of funding alternative means of receiving digital television.<sup>103</sup>

**66. We note the assurances from the Government and the transmission companies that there is an economic case for converting every single transmitter site. However, in the absence of more detailed published analysis, this will remain open to dispute. We recommend that the Government provides more information on the cost of converting television transmitters to digital as a function of population coverage. Where this involves the use of commercially confidential data, the analysis should be subjected to independent audit.**

67. We recognise that a decision has been made to opt for near universal (98.5%) DTT coverage partly on the grounds that it provides wider choice and simplifies the message of communicating switchover to the public. But it also removes choice for viewers of analogue television, including those who use analogue on second sets. Digital UK will accordingly have to communicate carefully the reality, and benefits, of digital switchover. The BBC is playing an important role in Digital UK, funding the majority of the management and operating costs and all the marketing and communications costs.<sup>104</sup>

68. The BBC has taken these costs into account in making a bid for an enhanced licence fee settlement for the period 2007-08 to 2013-14. The Corporation cites a figure of £700 million as being the additional cost for the seven years of the next Charter period “for building digital Britain”.<sup>105</sup> This sum includes Freesat, digital radio, HDTV, new coding and multiplexing facilities for both satellite and DTT, new circuitry as well as the construction of the new digital transmission network referred to in the Arqiva cost estimate. The BBC has also indicated a willingness to fund the one-off capital costs of digital conversion for Channel 4, provided sufficient funds are made available in the next licence fee settlement.<sup>106</sup> We note in this context that the BBC has already been enjoying a licence fee that exceeds inflation by 1.5%.

**69. The BBC's next licence fee settlement should take into account the Corporation's share of building the DTT network since this is by definition a broadcasting cost.**

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<sup>102</sup> Q 114

<sup>103</sup> Ev 200-6

<sup>104</sup> Ev 57

<sup>105</sup> Ev 72

<sup>106</sup> Ev 98

**However, we do not believe that this in itself justifies an above-inflation settlement. Whatever the outcome of the latest negotiations between the Government and the BBC on the next licence fee settlement, it is vital that the relevant figures are subjected to independent audit and the detailed conclusions of such an audit published.**

70. Other broadcasters will have to contribute to the build-out of the digital terrestrial network. By dint of its new broadcasting (digital replacement) licence issued by Ofcom, ITV is obliged to extend its digital terrestrial network substantially to replicate the analogue coverage area and to do so to the Government's 2008-12 timetable. The final switch-off date can, however, be changed by the Secretary of State. Similar obligations apply to the other commercial public service broadcasters (Channel 4 and Five). In written evidence<sup>107</sup> to the Committee, David Elstein referred to "a range of costs that arise from a series of policy decisions associated with the pre-emptive launch of digital terrestrial television – DTT – and the pressure to deliver ASO [analogue switch-off] as a consequence. These include the unnecessary bribe to ITV to induce it to take part in the DTT adventure, with a cost to the Treasury in excess of £1 billion".<sup>108</sup> Clive Jones of ITV responded by pointing to the "ground-shifting nature" of the change that digital switchover would bring about.<sup>109</sup>

### Consumers

71. BSkyB's written evidence noted that digital switchover will be paid for by the public, both directly through the purchase and installation of digital equipment and an increased BBC licence fee, and through reduced ITV and Channel Five broadcasting licence fees; the latter amount to public revenue foregone.<sup>110</sup> Echoing David Elstein, BSkyB's written evidence stated: "The main beneficiaries will be the commercial analogue terrestrial broadcasters (and in particular ITV) which enjoy a greater viewing share on the more capacity-constrained digital terrestrial television (DTT) platform, and appear likely to be gifted the released spectrum." If the latter occurs, possibly in connection with the launch of terrestrial High Definition TV, then exchequer receipts from spectrum sales will be lessened.

72. People with analogue televisions and videos will also have to pay to upgrade to digital. A wide variety of estimates exist for the cost to householders associated with switching over to digital equipment. Assigning household costs to digital switchover is problematical, partly because of difficulties in deciding which costs are compulsory and which would have been incurred anyway as part of a voluntary adoption of digital technologies.<sup>111</sup> At the low end are those estimates which consider only the cost of converting one television and, where necessary, upgrading the aerial. The cheapest set-top boxes cost less than £30,<sup>112</sup> though these tend to have fewer features.<sup>113</sup> According to government estimates, an

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<sup>107</sup> Ev 12-5

<sup>108</sup> The figure of £1 billion appears to be a reference to reduced broadcasting licence payments yielding savings of £135m per annum ("Licence fee victory for ITV", *broadcastnow.co.uk*, 29 June 2005)

<sup>109</sup> Q 215

<sup>110</sup> Ev 201

<sup>111</sup> Q 3

<sup>112</sup> Q 518

<sup>113</sup> Ev 41

“average household” with three televisions and a video cassette recorder could incur digital switchover costs ranging from £80 to £570.<sup>114</sup> The actual sum depends on the number of sets already converted and whether a new outside aerial is needed (at a cost of between £80 and £300). In some cases, costs may include new indoor aerials and rewiring.<sup>115</sup> Installing free-to-view satellite television on one set would come to £150.

73. A report by Scientific Generics for Ofcom found that the actual cost to individual households of non-voluntary digital conversion will range from £26 to £153.<sup>116</sup> Other estimates take into account converting or replacing all the TVs and video recorders in an average household. For example, the *Doors* section of the *Sunday Times* estimated the average cost per household to be £955.<sup>117</sup> This figure recognises the range of equipment, in terms of sophistication and price, and so includes an elective element. It also includes the cost of new cabling and the increased electricity consumption of set-top boxes left on standby. Nationwide, Dr Klein suggested that the additional electricity usage of set-top boxes would be largely offset by savings associated with shutting down analogue transmissions.<sup>118</sup>

74. While acknowledging the costs incurred by switchover would vary considerably, Jocelyn Hay of the Voice of the Listener and Viewer suggested an average figure of £600 per household. This figure includes new aerials, re-recording video libraries, and other related costs.<sup>119</sup> She objected to licence fee payers having to foot the bill for assisting vulnerable groups in addition to their own costs.<sup>120</sup> People who live in multiple dwelling units such as flats, about a fifth of the population, could face additional problems, particularly those who signed tenancy agreements before changes made by the Communications Act 2003.<sup>121</sup> Others will still need to get agreement with neighbours over how best to achieve switchover.<sup>122</sup>

## Cost-benefit analysis

75. In September 2003, the Government decided that it was appropriate to proceed with switchover because, to cite its written evidence, “the benefits far outweigh the costs”.<sup>123</sup> The submission went on to state that the updated cost-benefit analysis report<sup>124</sup> published in February 2005 showed “quantifiable benefits” to the UK economy of £1.1-£2.2 billion in net present value terms.<sup>125</sup> This variation reflects the dependency of the costs and benefits

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<sup>114</sup> Ev 219

<sup>115</sup> *ibid.*

<sup>116</sup> *Cost and power consumption implications of digital switchover*, Ofcom, November 2005

<sup>117</sup> “Stand and deliver : £955, please!”, *Sunday Times*, 27 February 2005

<sup>118</sup> Q 54

<sup>119</sup> Q 77

<sup>120</sup> Q 71

<sup>121</sup> Ev 34

<sup>122</sup> Q 82

<sup>123</sup> Ev 216

<sup>124</sup> *Cost Benefit Analysis (CBA) of Digital Switchover*, DTI/DCMS, 10 February 2005

<sup>125</sup> for a project duration from 2004 to 2026 and a discount rate of 3.5%

on the assumed completion date for switchover. For 2012 switchover, the net benefit compared with the alternative of ongoing dual analogue and digital transmission comes to £1.7 billion – a figure which comes from subtracting the total costs (£4.551 billion) from the total benefits (£6.244 billion). The outcome of the cost-benefit analysis is subject to a wide margin of error,<sup>126</sup> and is most sensitive to estimates of the value of extended coverage of digital terrestrial services and of the released spectrum. Significantly, these benefits are intrinsically difficult to pin down, in stark contrast to the costs associated with the purchase and energy consumption<sup>127</sup> of consumer reception equipment as well as broadcaster investment in digital infrastructure.

76. Chris Goodall questioned the Government’s cost-benefit analysis on at least two counts: first he judged the value (per household) attached to DTT’s extra channels to be overstated;<sup>128</sup> second, and more generally, the justification for the figures published by the DTI/DCMS was unclear and was not being made publicly available. In oral evidence, the Minister for Creative Industries and Tourism, James Purnell MP, rebutted the first of these points: “one of your witnesses talked about the fact we said it was worth £900 and sort of implied it was per year to consumers to have these extra channels - actually that is the net present value of the extra channels over 20 years.”<sup>129</sup> The Minister also indicated that the cost-benefit analysis had a supporting rather than determining role in fashioning the Government’s case.<sup>130</sup>

77. A government memorandum to the Committee of December 2005 provided more information on the cost-benefit analysis.<sup>131</sup> One example of costs is the capital and running costs of new DTT sites. On this the Government stated: “The information on costs that underpins the CBA model remains commercially sensitive, and cannot be released”.<sup>132</sup> One of the benefits is the “imputed consumer benefit of compulsory migration” – the value for households who only take up digital because of switchover.<sup>133</sup> While the Ministers defended this analysis,<sup>134</sup> citing published consumer research,<sup>135</sup> **it remains our view that the benefit side of the cost-benefit analysis is very subjective, and that the narrow economic case for switchover is inconclusive.**

78. The cost-benefit analysis was subjected to an independent academic examination and audit by Professor Andrew Chesher and Joseph Swierzbinski of University College London.<sup>136</sup> They went into some detail on the mechanics and structure of what is a fairly

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<sup>126</sup> 2012 switchover yields benefits most likely to be in the region of £1.0 - £2.9 billion, with £1.7 billion an estimate based on a central case.

<sup>127</sup> *Regulatory and Environmental Impact Assessment: the timing of digital switchover*, DCMS/DTI, September 2005

<sup>128</sup> Q 3

<sup>129</sup> Q 523

<sup>130</sup> Q 522

<sup>131</sup> Ev 228

<sup>132</sup> Ev 230

<sup>133</sup> Ev 232

<sup>134</sup> QQ 527-30

<sup>135</sup> *Stated and revealed preference survey of digital television services*, Steer Davies Gleave (for the DTI), November 2004

<sup>136</sup> *Report on the Audit of the Cost Benefit Analysis Spreadsheet Model of the Analogue TV switchover*, prepared for the DTI by Andrew Chesher and Joseph Swierzbinski, October 7<sup>th</sup> 2003

straightforward spreadsheet exercise. Their audit report appears to be significantly compromised by restricted access to the assumptions underlying much of the input data. On four occasions the report notes: “We are unable to comment on the provenance of these estimates”. The four occasions come under the headings of: cost savings from decommissioning analogue transmitters; cost of additional transmission sites for digital terrestrial signals; marketing and communication costs; and planning and operations costs. Despite these important limitations, the audit report provides some support for the Government’s economic analysis.

**79. The economic evidence in favour of digital terrestrial switchover is limited, but we recognise that the cost-benefit analysis has been used to inform rather than guide the decision that has been taken to proceed.**

### Vulnerable groups

80. The Government is going to require the BBC to establish assistance schemes to ensure “the most vulnerable” do not lose access to television services post switchover. Free or subsidised provision will be available to households where someone is aged 75 or over, or where someone has a severe disability.<sup>137</sup> Additional support will be offered to those who are registered blind. The Ofcom Consumer Panel believes that, by restricting free installation, equipment and instructions only to older people on pension credit, the Government is moving away from the principle of free TV reception for everyone over 75 regardless of income.<sup>138</sup> David Sinclair of Help the Aged thought it “absurd” to means test a set-top box;<sup>139</sup> he was particularly concerned about the 250,000 older people who were failing to claim this benefit.

81. In July 2004, the Secretary of State for Culture, Media and Sport had asked the Ofcom Consumer Panel to consider what measures might be necessary to protect the interests of “the most vulnerable” consumers during digital switchover. The Panel, which is independent of Ofcom, came to the key conclusion that “most vulnerable” in this context is most usefully defined in terms of social isolation; the latter can come about through a variety of factors such as age, disability and low English literacy. The Consumer Panel’s evidence made clear its “strong disappointment” that the Government has tied its assistance package to the benefits system, effectively ignoring the analysis based on social isolation.<sup>140</sup> Help the Aged thought it vital that research be carried out to identify the vulnerable.<sup>141</sup> Leen Petre, RNIB, thought there was a danger that the definition of vulnerability would be informed by cost considerations.<sup>142</sup> The Government’s evidence acknowledged the work of the Ofcom Consumer Panel, and it noted the potentially important role of charities, social workers, the local community and neighbours.<sup>143</sup>

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<sup>137</sup> Ev 250-1

<sup>138</sup> Ev 29

<sup>139</sup> Q 82

<sup>140</sup> Ev 28

<sup>141</sup> Q 82

<sup>142</sup> Q 71

<sup>143</sup> Ev 223

**82. The scope of the Government’s targeted assistance programme is too restricted and fails to acknowledge those who, by dint of income or social exclusion, are in genuine need. With analogue switch-off beginning in only two years, this matter requires urgent consideration.**

83. The problem of identifying vulnerable consumers and delivering a package of assistance needs to be clearly owned. Giving oral evidence, Colette Bowe of the independent Ofcom Consumer Panel said: “I think a very pointed question would be who owns this issue of identifying vulnerable consumers and working out what they really want and then delivering it. At the moment there seems to be a plethora of diffuse responsibility.”<sup>144</sup>

84. Ofcom’s written evidence noted that consumer issues are primarily the responsibility of Government and Digital UK.<sup>145</sup> The present digital switchover programme structure indicates that responsibility for targeted assistance rests with the Department for Culture, Media and Sport.<sup>146</sup> Digital UK are, however, involved in ongoing work to identify those who fall outside the targeted assistance scheme but who may need additional help with switchover.<sup>147</sup> One concern of Help the Aged is that the voluntary sector should be adequately financed to play its key role in providing practical help with switchover.<sup>148</sup>

**85. Responsibility for the administration of the targeted assistance scheme for vulnerable groups must be clearly assigned. The scheme should take into account the need to provide adequate funding for the voluntary sector, which will play a vital role in providing practical assistance to vulnerable groups.**

86. The Government and the BBC have been running a pilot project in Bolton to find out how much assistance elderly people need to convert their TV sets to digital.<sup>149</sup> This builds on work of an earlier technical trial in Llansteffan and Ferryside, which showed that many elderly people required significant levels of support.<sup>150</sup> In Bolton, Freeview was delivered at no cost to participants though, as an alternative, subsidised cable or satellite options could be taken. Few chose either of the latter two platforms, despite their greater functionality.<sup>151</sup> In oral evidence for Help the Aged, David Sinclair expressed concerns that older people could find themselves excluded from the services that increasingly will be made available via broadband or interactive television.<sup>152</sup> **We recommend that the targeted assistance scheme should include the provision of advice about the capabilities of competing digital TV platforms and the varying opportunities and facilities they offer to vulnerable groups.**

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<sup>144</sup> Q 90

<sup>145</sup> Ev 127

<sup>146</sup> *The Digital Switchover Programme: Programme Structure*, Digital UK, Ofcom, DCMS, DTI, 6 January 2006

<sup>147</sup> Ev 251

<sup>148</sup> Ev 39

<sup>149</sup> Ev 226

<sup>150</sup> Ev 145, 154-6

<sup>151</sup> Ev 252

<sup>152</sup> Q 66, Q 71

87. DTT trials like those at Llansteffan and Ferryside and, more recently Bolton, are essential for identifying practical challenges that switchover sets. Issues include the provision of technical assistance and the need to recruit and train volunteers, such as the WRVS, Community Service Volunteers<sup>153</sup> and students (as in Berlin).

**88. We recommend that further trials are conducted with the aim of identifying groups who are potentially left vulnerable by analogue switch-off. The trials should include people with disabilities, low income groups, the socially excluded, and involve the voluntary sector.**

89. BSkyB is concerned that the Government's support package for vulnerable people appears to focus on the cheapest digital option – invariably DTT.<sup>154</sup> A memorandum from the Department for Culture, Media and Sport acknowledged that “targeted assistance is based on the lowest cost option”.<sup>155</sup> With regard to targeted assistance, the Minister for Creative Industries and Tourism noted the technology neutral nature of the Government's policy, adding: “In those areas where DTT is not the cheapest option then we will make the cheapest option there available to them (probably satellite)...”<sup>156</sup> **The extent to which the emerging package of targeted assistance can be deemed to be platform-neutral and thus compatible with European competition law will have to be monitored and checked with care.**

90. Switching over to digital television will pose more than a financial challenge to some vulnerable groups. A Help the Aged survey showed that 57% of the elderly respondents saw digital television as a threat and not as an opportunity,<sup>157</sup> more generally, Colette Bowe referred to estimates suggesting that around 10% of households might be either reluctant or unable to go digital. She highlighted widespread unfamiliarity with digital technologies together with a range of practical problems associated with finding, purchasing and using suitable equipment.<sup>158</sup> There was a consensus among witnesses that the voluntary sector had a key role in ensuring digital switchover worked.<sup>159</sup> But the sector would need financial support:<sup>160</sup> according to the Ofcom Consumer Panel, mobilising and training volunteers to help vulnerable people acquire and install equipment would cost about £100 per household.<sup>161</sup> This is in addition to the cost of the equipment itself.

91. On the practicalities of making payments for services, such as aerial installations, the Confederation of Aerial Industries suggests that the support package for vulnerable groups could operate by means of a mechanism similar to heating allowance, rather than a voucher system or, worse, a “clumsy system of reclaiming expenses”.<sup>162</sup>

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<sup>153</sup> Ev 269

<sup>154</sup> Ev 205

<sup>155</sup> Ev 252

<sup>156</sup> Q 558

<sup>157</sup> Q 66

<sup>158</sup> Q 64

<sup>159</sup> Q 72

<sup>160</sup> Q 91

<sup>161</sup> Q 75, Q 78

<sup>162</sup> Ev 74

92. The total cost of the targeted assistance scheme is uncertain,<sup>163</sup> and it has not been factored into the BBC's proposal for a licence fee settlement well in excess of inflation.<sup>164</sup> Interestingly, targeted assistance is not included in the Government's cost-benefit analysis: it is treated as a transfer cost because the cost to the licence payer will, it is argued, be offset by the benefit gained by those in receipt of assistance.

93. It is planned to fund the scheme through the TV licence fee, the appropriateness of which will depend in part on the extent to which this is considered a broadcasting or a social cost. In its Second Report of 2005-06, the House of Lords Select Committee on BBC Charter Review argued against the Secretary of State's assertion that the targeted assistance scheme is a broadcasting cost: "We can see no reason why help for the over 75s, and other vulnerable viewers, with the costs of switchover should be borne by the BBC when the Government already accepts that it is responsible for bearing the costs of the licence fee for over 75s."<sup>165</sup>

94. Caroline Thomson told us that the BBC was "content" to go along with the Government's request to fund targeted assistance from the licence. However, her contentment was on the basis of four criteria: "that the licence fee is not being used as a substitute for social security payments, which clearly would be totally inappropriate, that any scheme meets all the state aid requirements and is platform neutral, that it does not in the end, partly because of the flat rate nature of the licence fee, put an unreasonable burden on the licence fee payers that would put the long-term future of the licence fee at risk, and that it is not at the expense of our core services."<sup>166</sup>

95. Written evidence from the National Consumer Council stated: "There is also a question of how the targeted assistance programme is being funded. Using funds raised from the television licence fee has the advantage of retaining a link between the funds and how they are used. It is also relatively cost-effective to collect. But it is not in line with the core purpose of the licence fee, which is to support programming, and NCC believes it would be false economy to direct money away from that. Using the licence fee is also likely to magnify the worst aspects of unfairness inherent in a flat-rate fee, where the burden is heavier on low-income households. As Government anticipates switching will deliver some financial benefit to the Treasury some of that money should be diverted to offset the burden for consumers." We agree. **While transmitter upgrading is clearly a broadcasting cost the provision of television and other receiving equipment is a social cost in recognition of the need to provide compensation to vulnerable groups. We believe that the use of Exchequer funds to meet this cost is more progressive and justified given the value of the spectrum released. It also places accountability properly on a Minister's desk. We recommend that the Government should reconsider this option.**

96. More specific issues arise from the importance of securing the availability of suitable equipment for receiving subtitled services and audio description on different platforms. There will be specific help for blind people; in particular, the Government is proposing that

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<sup>163</sup> Q 153

<sup>164</sup> Q 100

<sup>165</sup> Second Report, 2005-06, HL Paper 128-I paragraph 40

<sup>166</sup> Q 123

they should be able to benefit from the additional narration provided by audio description facilities. Currently there is only one DTT set-top box which offers these, and at £99, it is relatively expensive.<sup>167</sup> The RNIB has also called for cable systems to provide audio description.<sup>168</sup>

97. Ofcom (along with the DTI, DCMS and some broadcasters<sup>169</sup>) has carried out extensive research into the usability of digital TV equipment, estimating that one in 20 adults could encounter considerable difficulty. Ofcom's written evidence went on: "It is proposed that Digital UK should keep in mind the needs of users with the range of physical impairments, including hearing and sight loss, and should work to encourage availability of easy to use receivers with subtitles and audio-description." Leen Petre, RNIB, doubted whether the market alone would provide "intuitive, usable and accessible equipment."<sup>170</sup> In written evidence, the Government commented that through what it termed "the procurement process" it will be possible "to ensure" that equipment meeting relevant specifications is produced.<sup>171</sup> **The Government should do more to ensure the timely availability of digital receiving equipment and remote controls which are affordable and easy to use by people with cognitive, visual, hearing or physical impairments.**

98. An increase in the proportion of television programmes that are audio described would also act as an incentive for the blind and partially sighted to switch over to digital.<sup>172</sup> According to the Government, there are around 375,000 registered blind and partially sighted people in the UK. The RNIB estimates that a further 750,000 people could register but have not done so.<sup>173</sup> Other charities such as Hearing Concern have made similar points in relation to the provision of subtitles for the deaf and hard of hearing. **The Government and Ofcom should take steps to ensure that access to a wide range of subtitled and audio described programmes is available on all digital television platforms.**

## 4 Digital switchover in practice

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99. In April 2004, Ofcom published a report to the Secretary of State for Culture, Media and Sport entitled *Driving Digital Switchover*.<sup>174</sup> The report correctly predicted that digital take-up would continue to grow strongly over the following two years. Ofcom's projections suggested that digital take-up would subsequently slow and level off at around 80% of households. Significantly, the report concluded that the market alone would not deliver switchover. However, the report made it clear that Ofcom believed the digital switchover target date of 2012 would be achievable provided that a number of conditions were met. Greater certainty over the timing of switchover would be an important step. Other conditions include a gradual switchover process, near universal coverage, improved access

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<sup>167</sup> Ev 37

<sup>168</sup> Ev 38

<sup>169</sup> Ev 205

<sup>170</sup> Q 74

<sup>171</sup> Ev 224

<sup>172</sup> Q 70

<sup>173</sup> Ev 251

<sup>174</sup> Ev 120-2

to “freesat”, and information for consumers. The BBC, Ofcom argued, should be obliged to support switchover, and commercial analogue broadcasters should be incentivised via the licensing and spectrum allocation processes.

## Project management

100. Digital UK was formed by the public service broadcasters (BBC, ITV, Channel 4, Five, S4C and Teletext) and the commercial DTT multiplex operators (National Grid Wireless and SDN), all of whom are represented on the organisation’s board, along with representatives of the consumer electronics industry. Written evidence from Mentor commented that analogue switch-off “will be one of the largest and most complex programmes ever undertaken in this country, so Digital UK should be built around a core team of professional programme managers who have real experience of delivering difficult programmes.”<sup>175</sup> Mentor’s written evidence paid particular attention to the feasibility of achieving digital switchover to the Government’s timetable. Two processes need to run in parallel: “transmitter roll-out” and “equipment in the home”. The latter process involves converting all TV sets (including those reliant on portable aerials which are less suited to receiving digital signals) and video recorders.

101. Delivery of switchover and the associated benefits will require someone to assume clear responsibility, and to take into proper account consumer interests. The establishment of a consumer group to support the work of the ministerial group on digital switchover, and to support Digital UK, should thus be welcomed.<sup>176</sup> In broad terms, the Department for Culture, Media and Sport and the Department of Trade and Industry are responsible for managing the policy of switchover. Digital UK’s role lies in the implementation of that policy with support from the Government and Ofcom.<sup>177</sup>

102. The three key parties involved in managing and implementing digital switchover are the Government, Ofcom and Digital UK. Mentor considers it critically important that Digital UK be given adequate resources and the necessary authority if it is to organise effectively the switchover process and to arbitrate between different stakeholders. In its evidence, Mentor raised doubts as to whether Digital UK had been set up to run the programme in the necessary way.<sup>178</sup> Overall, Digital UK has 13 full-time employees, a number which is set to grow to between 20 and 25 within the next two years.<sup>179</sup>

103. Written evidence from Ofcom summarised the roles of the different players in the switchover process. It was Ofcom that recommended the establishment of Digital UK, so its description of the latter’s role is of interest. According to Ofcom, Digital UK’s role is, among other things, to implement government policy on switchover; to lead the switchover process “from the front” and to enable the switching off of the analogue signal.<sup>180</sup> These goals were rehearsed and repeated in Digital UK’s evidence under the

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<sup>175</sup> Ev 11

<sup>176</sup> Q 72

<sup>177</sup> *The Digital Switchover Programme: Programme Structure*, Digital UK, Ofcom, DCMS, DTI, 6 January 2006

<sup>178</sup> Ev 8-12

<sup>179</sup> Ev 144

<sup>180</sup> Ev 128

heading of objectives. Under the heading of “organisation”, Digital UK defined its operating tasks in terms of co-ordination, communication and liaison.<sup>181</sup> As Dr Andrew When commented in oral evidence: “These are not words like ‘to manage’, ‘to control’, ‘to organise’ - they are much softer, much weaker words - and what we are very much afraid of is that we have not got a general here, we have got a war correspondent, and we think that will lead to trouble.”<sup>182</sup>

104. Annex E of Digital UK’s written evidence provided an overview of the digital switchover programme structure.<sup>183</sup> Implementation of switchover involves nine work streams, six of which are led by Digital UK (the Government and Ofcom lead the others which cover regulation and targeted assistance). The Digital UK Programme Office will develop monthly progress reports for a switchover steering group comprising representatives from Digital UK, Government and Ofcom. Overall, we have been impressed by the work Digital UK has undertaken, particularly in view of its limited resources. **However, we are concerned that the complexity of the management structure leaves lines of accountability blurred. There need to be clearer chains of command with precise responsibilities specifically defined. We also believe that there is a danger that Digital UK will lack the authority and resources to manage the interests of a diverse group of industry stakeholders should their bonds of mutual self-interest come under strain.** In the event of any dispute, the Chairman of Digital UK, Barry Cox, told us: “the people who resolve it would be either Ofcom or Government because they are the people to whom the broadcasters are accountable.”<sup>184</sup>

105. For its part, Ofcom has been extensively involved in preparations for digital switchover: as a communications regulator, it licenses commercial broadcasters and multiplex operators to prepare for switchover. It is also an economic regulator and competition authority (with the OFT) for the terrestrial transmission market. Ofcom is responsible for securing optimal use of the radio spectrum. It has performed research on most aspects of switchover policy, including a report in 2004 to the Secretary of State on digital take-up and the prospects for switchover. More recently, Ofcom has commissioned and published a report by Scientific Generics on consumer aspects of switchover.<sup>185</sup>

106. As Digital UK stated in the introduction to its written submission, the Government has determined the policy of digital switchover and Digital UK has been charged with “coordinating” the delivery of this policy within the agreed timeframe. Ofcom stated that Digital UK has “responsibility” for achieving switchover to the specified timetable.<sup>186</sup> The Government also has, in the BBC, a key agent for the delivery of switchover. As stated in its Green Paper, *A strong BBC, independent of Government*: “One of the conditions of the new licence fee settlement will be that the BBC should play a leading role in the process of switching Britain over fully from analogue to digital television.” In addition to developing digital technologies, the BBC was also called upon to help establish and manage Digital UK

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<sup>181</sup> Ev 144

<sup>182</sup> Q 1

<sup>183</sup> Ev 152-3

<sup>184</sup> Q 354

<sup>185</sup> *Cost and power consumption implications of digital switchover*, Ofcom, November 2005

<sup>186</sup> Ev 122

and to play a leading role in the public information campaign.<sup>187</sup> It has also been asked to help establish and pay for schemes for vulnerable consumers.<sup>188</sup>

107. Through technical innovations and new content, the BBC is contributing to the take-up of digital television. Its written evidence pointed to the new digital television services and on-demand services such as the Creative Archive and myBBCplayer (though the latter are computer-based). The BBC's role in achieving switchover covers several other areas as well: it is a major funding source for Digital UK; it will fund a new DTT transmitter network; it plans to develop a Freesat service; it engages in marketing activity (including a telephone helpline); and it is assisting Ofcom in drawing up a new frequency plan for terrestrial television (that will require Europe-wide agreement). According to Caroline Thomson, "the BBC sees its role as being to lead Digital Britain..."<sup>189</sup>

108. However, the Government cannot leave everything to the BBC and the plethora of other players in the digital project. It needs to lead and be transparently accountable for its policies. Intellect's written evidence implies that the current DTI/DCMS joint ownership of the switchover project could blur the "channel of accountability".<sup>190</sup> For their part, the Ministers referred to the complexity of the digital switchover programme. James Purnell MP pointed to the "comprehensive project plan" with clearly assigned responsibilities.<sup>191</sup> Alun Michael suggested that "the idea of single leadership is fine as a concept" and highlighted Digital UK's supportive and coordination role.<sup>192</sup> We think single leadership is fine in practice, and as a concept finds wide application throughout Government.

**109. Both convergence in communications technologies and the need for clear political supervision and accountability indicate that the digital switchover programme needs a visible champion and that this should be an identified Government Minister. We recommend that this "lead" Minister should be within the Department for Culture, Media and Sport as the lead Department in this process.**

## Transmitter works

### Coverage

110. Between them, Arqiva and National Grid Wireless (NGW) own and operate the terrestrial television towers that provide analogue services to about 99% of the population. Arqiva is the transmission service provider for ITV, Channel 4 and Five, while NGW (formerly Crown Castle) serves the BBC. Both companies also provide transmission services to the digital multiplex operators: Digital 3&4 Ltd (a joint venture between ITV

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<sup>187</sup> Ev 57

<sup>188</sup> Ev 62, Q 146

<sup>189</sup> Q 120

<sup>190</sup> Ev 77

<sup>191</sup> Q 513

<sup>192</sup> *ibid.*

and Channel 4), SDN (owned by ITV) and the BBC. NGW is also a multiplex licensee in its own right.<sup>193</sup>

111. Both the Government and the broadcasters believe that the digital switchover timetable is achievable and appropriate.<sup>194</sup> This will see the ITV Border region switched first to digital in the second half of 2008. Tyne Tees and Ulster will be the last UK regions to switch: in the second half of 2012. The regional sequence for switchover has been determined by three technical factors: interference management, infrastructure and engineering resources, and international spectrum negotiations. The outcome of the latter is most likely to have a bearing on the south and east of England and Northern Ireland, as well as the Channel Islands (which will probably switch during 2013).<sup>195</sup>

112. Written evidence from TrinityStar noted that 200 transmitter sites (most of which are relays rather than main transmitters) will be capable of carrying all six DTT multiplexes.<sup>196</sup> However, the remainder of the 1,154 sites will only have the three public service multiplexes fitted. These will carry all the BBC, ITV, Channel 4, S4C and Channel 5 free-to-view channels. Engineering work on the masts, so-called “air works”, will commence two years ahead of the relevant switchover date to provide insurance against bad weather.

113. In a written answer on 12 September 2005, the broadcasting Minister James Purnell MP stated: “The Government are committed to ensuring that everyone who currently receives the main public service broadcasting channels in analogue will be able, at digital switchover, to receive them in digital form.”<sup>197</sup> Evidence from Mentor referred to “major problems” such a policy will cause in areas with marginal terrestrial coverage where viewers who accept poor quality analogue coverage will probably not be able to receive any digital picture at all.<sup>198</sup> In general, while the standard of analogue reception varies continuously depending on geographical location, digital reception tends to be all or nothing.

114. Overall, the aim is for DTT to reach 98.5% of the population, the same percentage adjudged to receive analogue terrestrial TV today. However, some people are likely to lose some television services post-switchover, and others will gain, as confirmed by Clive Jones of ITV during oral evidence on 6 December: “The digital map will not completely follow the analogue map. There might be small regional variations. That 1.5% of the population which do not get analogue signals might be a different 1.5% which do not get digital signals.”<sup>199</sup> In oral evidence on 13 December, the Chief Executive of Ofcom, Stephen Carter, guessed that a few thousand households would find themselves no longer able to get a terrestrial TV picture after switchover.<sup>200</sup>

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<sup>193</sup> Ev 150-1

<sup>194</sup> Ev 222

<sup>195</sup> *Analogue Switch-off and New Digital Services*, Westminster Media Forum, December 2005 pp 33-4

<sup>196</sup> Ev 336

<sup>197</sup> HC Deb 12 September 2005 c 2291W

<sup>198</sup> Ev 10

<sup>199</sup> Q 195

<sup>200</sup> Q 300

115. In May 2004, Ofcom published a report which quantified current levels of coverage achieved by the four main analogue public service channels, BBC One, BBC Two, ITV1 and Channel 4 or S4C.<sup>201</sup> The analogue coverage report gave a value of 98.5% of households with this core coverage. This percentage coverage should be substantially replicated following switchover. It compares to a figure of 99.4% of the population in receipt of free-to-air analogue channels that was cited by the former Secretary of State Chris Smith in 1999. A still lower coverage figure of 90% is expected for commercial multiplexes, which do not carry public service channels.

### **Reception**

116. The Confederation of Aerial Industries has direct experience of enabling television reception. Its written evidence referred to areas where DTT will prove non-existent.<sup>202</sup> It further noted that an unknown number of individual householder aerial systems will fail when a switchover occurs. In general, however, the CAI believes that the industry has sufficient resources in place to cope with the scheduled switchover timetable with regard to individual households. As noted elsewhere in this report, multiple dwelling units pose a challenge.

117. One reputed benefit of DTT is that it enables secondary and portable TV sets to be converted easily. In Berlin, the Committee learned that the digital signals were indeed sufficiently strong to be picked up by portable aerials (which was just as well as many roof-top aerials in the city had fallen into disrepair). However, Ofcom's evidence noted that a small proportion of existing roof-top aerials "and many more existing portable aerials" would be unlikely to be able to receive an acceptable digital signal, even after switchover.<sup>203</sup> A memorandum from National Grid Wireless estimated that 1 million households currently use an indoor aerial on their main television set. Citing a draft Ofcom report, it went on: "between 50% and 75% of these households will be able to receive digital terrestrial broadcasts on the same sets using existing or improved portable reception systems."<sup>204</sup>

**118. We recommend that Ofcom and Digital UK initiate DTT reception trials in a variety of geographical regions and settings.**

### **Planning**

119. Written evidence from the Parliamentary Office of Science and Technology noted: "A few masts have to be replaced, which will need planning permission. One of these masts is in the Border region, so time before switchover has had to be allowed to gain permission and rebuild it".<sup>205</sup> According to Arqiva's evidence: "Undue delay in both planning permission and land acquisition for new replacement masts could potentially put the

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<sup>201</sup> Ev 125

<sup>202</sup> Ev 73

<sup>203</sup> Ev 120

<sup>204</sup> Ev 338

<sup>205</sup> Ev 309

overall timetable at risk.”<sup>206</sup> At the moment, even minor changes (some of which are only temporary) to mast structures require planning consent.<sup>207</sup> By contrast, new masts are more understandably subject to full planning controls. Other users of masts, such as radio broadcasters, mobile operators, emergency services and the Ministry of Defence, also may have contractual rights the enforcement of which could affect the timetable.

120. Arqiva suggests that the Government could grant some extension to existing electronic communications code powers or permitted development rights and possibly compulsory purchase rights. Elaboration on these proposals has been provided in a further supplementary memorandum submitted jointly by Digital UK and Arqiva.<sup>208</sup> This highlighted the “essential” need for “ministerial interjection and Department liaison” to minimise the risks to the Government’s own digital switchover project.

**121. For new transmitter masts, we recommend that local planning authorities be formally reminded of the Government’s policy on digital switchover in terrestrial broadcasting and that this should inform the necessary planning applications.**

**122. We recommend that the Government issues guidance to local planning authorities to ensure that proposals to modify existing transmitter masts are dealt with expeditiously and in the context of national policy.**

### **Implementation**

123. Within a given ITV region, digital switchover will take place in a staggered fashion: one analogue channel (BBC Two) will switch to digital first, followed by an intervening period before the remaining channels switch. A memorandum from Digital UK explains the process in some detail, including the additional warnings that will be provided to viewers when switchover is impending.<sup>209</sup> Unless a high proportion of equipment in a region has already been converted, then Mentor suggests that turning off the relevant analogue transmitters will be politically impossible.<sup>210</sup>

124. One specific issue is the transition period between switching off BBC Two and completing analogue switch-off in a given region. When BBC Two is switched off, the frequency channel thus released will then be used to broadcast one of the three public service digital multiplexes.<sup>211</sup> About a month later, analogue switch-off will occur for the remaining television channels. Transmission companies favour a one month period for practical reasons related to the deployment of engineers. A memorandum from Digital UK stated: “in order to meet the 2012 deadline and in order to contain costs the working assumption should be a channel transition period of up to one month.”<sup>212</sup> Barry Cox, Chairman of Digital UK, said during oral evidence that: “DCMS would have liked it to

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<sup>206</sup> Ev 176

<sup>207</sup> Ev 175

<sup>208</sup> Ev 174-5

<sup>209</sup> Ev 153

<sup>210</sup> Ev 8

<sup>211</sup> Ev 154 (BBC Two will be one of the channels broadcast on the first digital multiplex to switch)

<sup>212</sup> Ev 173

have been longer and I think some of the consumer groups would have liked it to have been longer. They have accepted that this is the right period and we will have to demonstrate that it works in practice.”<sup>213</sup>

125. In Berlin, a period of six months was chosen. The public broadcaster RBB told us that many householders had waited until near the end of the six-month grace period before upgrading their receiving equipment to digital. In Gotland, Sweden, 20-30% of households waited until the last few weeks to get digital equipment.<sup>214</sup> In the Ferryside and Llansteffan technical trial, the digital/analogue transition period was three months. An additional factor is that there will, presumably, be a number of households who will not find the loss of BBC Two sufficient incentive to switch over before the remaining analogue channels are taken off the air a month later. It is also unrealistic to expect people to buy DTT equipment long before they are able to receive broadcasts. Avoiding peaks in demand will be a key factor in the marketing strategy of retailers and Digital UK.

**126. Digital UK must monitor closely the operation and consequences of the transition period between the loss of BBC Two and complete analogue switch-off in any given region. A longer period should be adopted if there are indications that this is necessary to protect consumer interests.**

## Managing supply

127. Intellect is the trade association representing the IT, Telecoms and Electronics sectors. Its evidence asserted that the Government and Digital UK must fully understand and respect the supply chain process.<sup>215</sup> This comment comes in the context of industry’s need for certainty, both in the timings of switchover and the need to receive sufficient notice of marketing and promotional campaigns (given the upsurge in consumer demand they are likely to bring about).

128. At a Westminster Media Forum seminar, Danny Churchill of DSG International highlighted the likely consumer demands that switchover would impose on the supply chain. An average of three digital conversions per UK household (2 TVs and a VCR) implies that some 60 million units will have to be supplied over the next 7 years.<sup>216</sup> Given the capacity constraints of the manufacturing sector, a steady consumer demand would have to be created and managed if shortages, and a “final year stampede”,<sup>217</sup> were to be avoided. DSG International is also concerned about the extra advice that retailers will find themselves having to give customers.

129. The Confederation of Aerial Industries also referred to the need to train adequate numbers of aerial and satellite dish installers. Written evidence from the CAI drew particular attention to a shortage of engineers qualified to carry out the amount of work necessary to convert communal aerial systems; the situation is exacerbated by the lack of

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<sup>213</sup> Q 373

<sup>214</sup> Ev 170

<sup>215</sup> Ev 76

<sup>216</sup> Q 155

<sup>217</sup> Power point presentation at the Westminster Media Forum, 3 November 2005

incentives for the housing industry to upgrade to digital.<sup>218</sup> In the first oral evidence session of the Committee's inquiry, Chris Goodall stated that there were only 120 engineers qualified to upgrade multiple dwelling units.<sup>219</sup>

130. Multiple dwelling units such as blocks of flats accommodate a fifth of the population and switchover here is complicated by the varying relationships among residents and landlords, as well as a possible shortage of qualified installers of appropriate antennae systems.<sup>220</sup> BSkyB's written evidence urged some other changes to planning rules, arguing that the grant of planning permission to developers for new and refurbished buildings should be made conditional on the installation of integrated reception systems in multi-dwelling units. Integrated reception systems allow the individual householders to choose between accessing satellite TV or terrestrial TV by means of a system of switches. Such systems tend to be more expensive than Master Antenna TV systems which tie in each household in a block of flats to terrestrial TV (unless individual householders invest in a dedicated satellite dish). In written evidence, ASTRA GB focused on the promotion of integrated reception systems for converting multiple dwelling units to digital.<sup>221</sup> ASTRA GB claimed that these aerial systems were given insufficient prominence in a good practice briefing produced by the DCMS in conjunction with the Chartered Institute of Housing. Further evidence from ASTRA GB argued that a trial in an urban area would be needed to obtain a full understanding of the implications for residents in MDUs, "including the need for incentives, advice and support for social and private landlords". Such a trial would also allow for an assessment of residents' "experiences and feedback on the availability and access to services and the conditions of technical equipment such as existing aerials."<sup>222</sup>

131. BSkyB also wants new properties to be ducted, cabled and wired for digital television, and its written evidence referred to upcoming non-statutory guidance. The Building Regulations would have provided a statutory alternative – a route the Government has not gone down, to BSkyB's regret. It is not clear how prescriptive an approach BSkyB would favour; after all, a block of flats served by ordinary copper telephone lines may be able to get digital television via broadband technologies. The digital subscriber line, DSL, service offered by Homechoice already provides for this in London.<sup>223</sup>

132. In written evidence, Video Networks (Homechoice) noted that the cost of cabling a multiple dwelling unit to receive DTT runs into many thousands of pounds "and come 2012 will only be providing residents with yesterday's television experience". The Chartered Institute of Housing and DCMS have recently published a guide for housing professionals which outlines the options for installing appropriate communal receiving systems.<sup>224</sup> Systems to receive terrestrial and satellite services are generally installed by contractors appointed by the landlord or management agent. In contrast, cable and DSL services are usually installed by the service operator.

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<sup>218</sup> Ev 74

<sup>219</sup> Q 31

<sup>220</sup> Q 82, Q 31

<sup>221</sup> Ev 278-81

<sup>222</sup> Ev 281

<sup>223</sup> Q 457

<sup>224</sup> *Digital Switchover: A Good Practice Briefing Special Edition*, 11 August 2005

133. Though funding could be a significant stumbling block, there does seem at least some scope for DSL services to be installed by both public and private landlords – possibly paid for either by a rental supplement (as is commonly the case for cable in Germany for example) or as an inducement to attract new tenants. If this became common it could provide an alternative to more traditional free-to-view platforms, as might lower-cost cable packages.<sup>225</sup>

**134. We recommend that the Government and Digital UK conduct a comprehensive economic and technical digital switchover trial aimed specifically at multiple dwelling units. The scope of such a trial should be such as to include local authorities, registered social landlords and private landlords.**

135. Other than DTT, the main free-to-view platform is satellite, and this will doubtless assume an increasingly important role. Digital satellite signals cover the vast majority (96-98%) of UK households. In some cases reception is not possible because of topography or trees or high buildings, and in other cases installation may be prevented by planning regulations. In written evidence, BSkyB attaches importance to the removal of obstacles which currently hinder people from moving to digital television, and a number of legal and regulatory barriers are identified.<sup>226</sup>

136. On 27 October 2005, a week after BSkyB's written submission, the ODPM laid revised planning regulations for the installation of aerials and satellite dishes. The amended permitted development regulations (for England only) are designed to subject all antennae, whether satellite dishes or any other type, to the same rules. Listed buildings will still need full listed building consent to install antennae, including satellite dishes. The new regulations aim to strike a more appropriate balance between environmental and aesthetic concerns and access to satellite services. In oral evidence, BSkyB suggested that the revised planning regulations for antennae (i.e. television aerials or satellite dishes) did not go far enough.<sup>227</sup> In further written evidence BSkyB argued that the new planning rules were inconsistent with EU (and UK) policy on technological neutrality. BSkyB believes that the Government should have done more to bring dishes on a par with *de minimis* aerials.<sup>228</sup> Local planning authorities enjoy some discretion to treat dishes similarly.

**137. We recommend that the Government re-examines planning regulations and procedures to ensure greater equity in their application to satellite dishes and aerials. At the very least, local planning authorities should be encouraged, through formal guidance, to exercise the discretion they have in the application of planning regulations to satellite dishes.**

## Consumer information

138. Digital UK recognises the importance of marketing. Its key task is ensuring that all members of the public are fully aware and understand digital switchover, while those who

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<sup>225</sup> Ev 190

<sup>226</sup> Ev 200-6

<sup>227</sup> Q 495, Q 498

<sup>228</sup> Ev 213

need help and assistance know how to access it. Already a website and telephone help lines are available and an advertising campaign is well underway in the ITV Border region, earmarked to go digital first. According to a national survey conducted in November 2005, 61% of the respondents had heard of digital TV switchover, with a majority of these (also 61%) actually understanding what it meant. In other words, about 37%, or just over a third of the population, is estimated to understand the consequences of digital switchover. In the Border region understanding is considerably higher,<sup>229</sup> suggesting some success in the marketing efforts of Digital UK and others.<sup>230</sup> However, there is mixed evidence as to the depth of understanding among the public as was indicated by the comments and feedback from the 643 listeners who responded to BBC Radio 4's *You and Yours* programme on analogue switch-off.<sup>231</sup>

139. Digital UK's viewer communication and support programme will be funded by the BBC. Its marketing will be independent and impartial, supporting all digital TV platforms and encouraging diversity in digital TV options and services. Given the range of digital options available and falling prices for equipment, Digital UK does not expect affordability to be a significant issue for most people. Digital UK's public information campaign will communicate on a regional basis starting three years before switchover; this will include mailings to all households as well as leaflets in libraries and many retail outlets.<sup>232</sup>

**140. Digital UK should provide the public with clear information on the prices and capabilities of digital receiving equipment across all platforms.**

141. Though the electricity consumption of set-top boxes is probably less important an issue than some commentators have suggested, this provides one proxy for product quality.<sup>233</sup> The high electricity consumption of some set-top boxes, presumably cheaper, less well constructed models, was raised at the first evidence session on 8 November. Boxes with added features, such as those catering for people with disabilities, will be more expensive to produce and may have lower sales, affecting profit margins.

**142. Set-top boxes and other digital receiving equipment should be labelled with information on their energy efficiency.**

143. The BBC and other broadcasters have an important role, and interest, in informing viewers. BSkyB's oral<sup>234</sup> and written<sup>235</sup> evidence referred to concerns about the emphasis given to Freeview by the BBC, which it contrasted to the platform neutrality of Digital UK. To quote the written evidence: "As the government's 2005 Green Paper on the BBC Charter points out, unclear promotional activity has fostered confusion and concern

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<sup>229</sup> Q 343

<sup>230</sup> *Monthly Consumer Metrics Report*, Digital UK, 19 December 2005

<sup>231</sup> Ev 339

<sup>232</sup> Ev 145

<sup>233</sup> Q 173

<sup>234</sup> Q 501

<sup>235</sup> Ev 204

among sections of the population who assume that if unable to receive DTT they will not be able to receive the BBC's channels on a free-to-view basis."<sup>236</sup>

144. Intellect, which represents consumer electronics companies like Sony, has criticised the BBC's on-air campaign promoting Freeview. In written evidence, Intellect argued that this constitutes a direct market intervention and sets a low price expectation for set-top boxes, making it more difficult for manufacturers to include more sophisticated features to aid functionality and usability.<sup>237</sup>

145. For its part, the BBC claims that its promotional work on digital television is now platform neutral. In oral evidence Tim Davie said: "In the latest trails that we are running equal prominence is given to Freeview and to Freesat."<sup>238</sup>

**146. The BBC's services are, quite rightly, available on all digital platforms. The Corporation must be platform-neutral in all its digital promotion and information campaigns.**

147. Five also "looks forward" to playing a part in informing viewers of the onset of digital switchover and the actions they need to take to ensure they continue to receive television. Five notes that much of this work will be "co-ordinated" by Digital UK.

148. In written evidence, Channel 4 strongly rejected a Government suggestion that promotional air-time on Channel 4, ITV and Five should be allocated free to support switchover. The Channel believes it should benefit from some of Digital UK's marketing budget, just like other commercial media. A communications strategy is just one element of what Channel 4 sees as an emerging consensus on the best way of achieving switchover; the others are a strong free-to-air DTT platform, targeted help for the vulnerable, and a strong presence on all platforms of public service broadcasters.

## Aerial installation

149. Many viewers will need new aerials to receive digital television. Present estimates are that, post switchover, about 10% of analogue terrestrial households will have to replace their aerial to receive digital terrestrial television.<sup>239</sup> It is crucial that opportunities are denied for "cowboy" aerial installers to exploit any information vacuum,<sup>240</sup> particularly in relation to vulnerable people. Help the Aged has expressed concern that "a small number of older people are likely to find themselves being targeted by rogue traders or bogus callers" using digital TV as an excuse to gain access to their homes.<sup>241</sup> These sentiments were endorsed by Age Concern particularly in the context of aerial installations and "distraction burglars possibly gaining entrance on the pretence of retuning the television."<sup>242</sup> The National Consumer Council has suggested that a scheme similar to that

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<sup>236</sup> The BBC's services are also available on a free-to-view basis on Freesat from Sky.

<sup>237</sup> Ev 75-8

<sup>238</sup> Q 125

<sup>239</sup> Q 306, Q 359

<sup>240</sup> Q 312

<sup>241</sup> Ev 45

<sup>242</sup> Ev 284

operated by Channel 5 for retuning equipment should be deployed to prevent rogue traders from coming into people's homes or selling unsuitable products and services.<sup>243</sup>

150. The Royal National Institute for Deaf People has also called for strict measures to be put in place to ensure that DTT aerial installation does not become a “rogue’s charter”. Its written evidence suggested that fewer than half of UK installers were members of the Confederation of Aerial Installers.<sup>244</sup> We are encouraged by the work the CAI is doing to develop an accreditation programme<sup>245</sup> and particularly welcome the launch of the Registered Digital Installer Scheme. Under the Scheme, accredited installers will have to have achieved Level Two NVQ or SVQ in Electrical and Electronic Servicing and will also require appropriate public liability insurance and satisfactory criminal record disclosure. This will then allow them to use the digital tick logo, a certification mark that signifies digital switchover-compatible equipment and services.<sup>246</sup> But, however reliable any accreditation scheme is, it must be widely advertised and effectively policed.<sup>247</sup>

**151. Digital UK should provide consumers with information on the prices of equipment and services associated with digital switchover. The latter should include the cost of aerial installations under different circumstances.**

**152. Digital UK should monitor closely aerial installation practices to ensure that consumers are properly protected. The importance of using accredited installers should be reinforced through widespread advertising and information campaigns. This must be matched by tough action by Trading Standards and other enforcement bodies against “cowboys” attempting to exploit lack of understanding about the technical requirements of the switchover process.**

## Supporting consumers

153. Some individuals will lose television as a result of digital switchover. In some cases this may be due to a possible<sup>248</sup> concomitant change away from the transmission mode on which the earliest set-top boxes depend.<sup>249</sup> The latter are only compatible with the current 2k mode, which (as the term reflects) involves dividing the digital transmission among 2,000 streams. More robust reception, for example in cities and valleys, is provided by the newer 8k (8,000 streams) transmission mode.<sup>250</sup> Modern set-top boxes will be compatible with both.

154. Most analogue-only households will lose television simply because they have delayed the purchase of a suitable set-top box to receive digital terrestrial broadcasts. In its report of April 2004, *Driving Digital Switchover*, Ofcom stated: “At the time of switchover, any

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<sup>243</sup> Ev 276

<sup>244</sup> Ev 268

<sup>245</sup> QQ 164-5

<sup>246</sup> Ev 145-6

<sup>247</sup> Ev 225-6

<sup>248</sup> Ev 174

<sup>249</sup> Ev 355

<sup>250</sup> “A thousand channels in every home”, *New Scientist*, 10 August 1996

financial support scheme should seek to avoid the risk that households would delay purchasing the relevant conversion equipment by offering any financial incentives to all households in designated groups rather than just digital non-adopters.”

155. There will, however, be people who will be forced to convert to digital satellite television because what they judge to be an “acceptable” analogue signal will not be replicated by digital terrestrial broadcasts. The judgement of what constitutes acceptable reception should rest with the viewer, and it should not be open to the Government to avoid responsibility by suggesting otherwise. Accordingly, one appropriate proxy for acceptable reception could be possession of a TV licence by households with nothing other than analogue terrestrial TV. The (unpublished) spreadsheet model used in the Government’s cost-benefit analysis and accompanying documentation, inputs low, central and high estimates for the total number of households forced to convert to digital satellite television.<sup>251</sup>

156. The Government’s cost-benefit analysis of February 2005 is based on conversion of all the existing transmitter sites from analogue to digital. “This should mean that all current analogue viewers could receive the public services they receive now by DTT.”<sup>252</sup> Several witnesses to the Committee’s inquiry have made the point that a number of households will lose access to terrestrial television broadcasts post switch-off. When the Chief Executive of Ofcom, Stephen Carter, suggested<sup>253</sup> that a few thousand households would be affected in this way, he added: “the unit cost of providing them with some alternative form of service will be a relatively small part of this project.” It is worth pointing out that even satellite TV may not be a viable alternative in a relatively small number of cases.

**157. In view of the Government’s assessment of the economic benefits of digital switchover, we believe it is appropriate that households that consequentially lose all access to television with their existing receiving equipment, including those that fall outside the targeted assistance scheme, should be given assistance to migrate to alternative platforms.**

158. The first evidence session in the present inquiry heard the concerns of some industry analysts about the purpose, feasibility and cost of analogue switch-off. Consumer groups recognised that extending digital terrestrial television coverage would bring choice and the prospect of new interactive services; however, there were concerns that vulnerable people had not been identified, even before the adequacy of the proposed support package was addressed.

**159. Overall, the case for switching off analogue television to extend coverage of the digital terrestrial platform offers clear benefits, but also carries significant risks. By addressing the potential pitfalls identified, the Government can mitigate any adverse consequences and maximise the advantages that digital television undoubtedly offers.**

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<sup>251</sup> According to *Report on the Audit of the Cost Benefit Analysis Spreadsheet Model of the Analogue TV switchover*, prepared for the DTI by Andrew Chesher and Joseph Swierzbinski, October 7<sup>th</sup> 2003

<sup>252</sup> *Cost Benefit Analysis (CBA) of Digital Switchover*, DTI/DCMS, 10 February 2005

<sup>253</sup> Q 300

160. The Government's adoption of a firm and early timetable for analogue switch-off is a bold, and some would say brave, decision. The timetable appears to be technically realistic, but if it is to be achieved with minimum disruption and maximum support the process will require timely regulation by Ofcom, effective management by Digital UK and clear leadership by Government.

## Conclusions and recommendations

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1. The case for switching off the analogue signal grows stronger as more and more convert to digital. No-one would dispute that it would be wasteful to go on indefinitely using large amounts of valuable spectrum for analogue television when the number of viewers is steadily shrinking. However, the case for forcing the pace by starting the switch-off process when a sizeable number are still choosing to stay with analogue is more controversial and potentially risky. The Government should therefore be commended for a bold decision to proceed with complete analogue switch-off by 2012. All attention must now focus on ensuring that switchover takes place with the minimum cost and disruption. We must also ensure that the opportunities that it will present for a whole new range of digital services are exploited to the full. (Paragraph 22)
2. The Government and Digital UK should do far more to explain to the public why they have chosen to proceed with analogue switch-off now, what options are available to people and on whom the costs and benefits will fall. This is all the more important in view of the element of compulsion that has been introduced. (Paragraph 35)
3. We share the concern that by emphasising the low cost of set-top boxes in an effort to persuade people that switch-off will be relatively inexpensive, the Government risks missing an opportunity to encourage the take-up of more sophisticated digital technology offering interactive services and additional facilities. The Government and Digital UK should make clear that the more advanced boxes and other digital platforms, including broadband, may offer significant additional benefits rather than simply focusing on the cheapest option. (Paragraph 43)
4. We support the proposed development by the BBC and ITV of a free-to-view satellite platform, which should carry all the public service channels, since it will extend choice and offer more services than is possible through digital terrestrial transmission. (Paragraph 48)
5. We welcome the development of local television and the potential it offers to provide a valuable community service. We would hope that the opportunity offered by analogue switch-off will be seized to allow the establishment of local television services. (Paragraph 54)
6. There are a wide range of different possible uses for released spectrum which also involve different engineering requirements. We recommend that in coming to a decision on the deployment of released spectrum, Ofcom takes full account of both social and economic benefits. We are concerned at suggestions that delay in reaching decisions may affect the economics of some potential applications and would therefore hope that this process can be carried out as expeditiously as possible to give certainty to all the industries affected and to give time to the transmission companies to carry out the necessary work as part of the switch-off programme. (Paragraph 58)

7. We note the assurances from the Government and the transmission companies that there is an economic case for converting every single transmitter site. However, in the absence of more detailed published analysis, this will remain open to dispute. We recommend that the Government provides more information on the cost of converting television transmitters to digital as a function of population coverage. Where this involves the use of commercially confidential data, the analysis should be subjected to independent audit. (Paragraph 66)
8. The BBC's next licence fee settlement should take into account the Corporation's share of building the DTT network since this is by definition a broadcasting cost. However, we do not believe that this in itself justifies an above-inflation settlement. Whatever the outcome of the latest negotiations between the Government and the BBC on the next licence fee settlement, it is vital that the relevant figures are subjected to independent audit and the detailed conclusions of such an audit published. (Paragraph 69)
9. It remains our view that the benefit side of the cost-benefit analysis is very subjective, and that the narrow economic case for switchover is inconclusive. (Paragraph 77)
10. The economic evidence in favour of digital terrestrial switchover is limited, but we recognise that the cost-benefit analysis has been used to inform rather than guide the decision that has been taken to proceed. (Paragraph 79)
11. The scope of the Government's targeted assistance programme is too restricted and fails to acknowledge those who, by dint of income or social exclusion, are in genuine need. With analogue switch-off beginning in only two years, this matter requires urgent consideration. (Paragraph 82)
12. Responsibility for the administration of the targeted assistance scheme for vulnerable groups must be clearly assigned. The scheme should take into account the need to provide adequate funding for the voluntary sector, which will play a vital role in providing practical assistance to vulnerable groups. (Paragraph 85)
13. We recommend that the targeted assistance scheme should include the provision of advice about the capabilities of competing digital TV platforms and the varying opportunities and facilities they offer to vulnerable groups. (Paragraph 86)
14. We recommend that further trials are conducted with the aim of identifying groups who are potentially left vulnerable by analogue switch-off. The trials should include people with disabilities, low income groups, the socially excluded, and involve the voluntary sector. (Paragraph 88)
15. The extent to which the emerging package of targeted assistance can be deemed to be platform-neutral and thus compatible with European competition law will have to be monitored and checked with care. (Paragraph 89)
16. While transmitter upgrading is clearly a broadcasting cost the provision of television and other receiving equipment is a social cost in recognition of the need to provide compensation to vulnerable groups. We believe that the use of Exchequer funds to meet this cost is more progressive and justified given the value of the spectrum

released. It also places accountability properly on a Minister's desk. We recommend that the Government should reconsider this option. (Paragraph 95)

17. The Government should do more to ensure the timely availability of digital receiving equipment and remote controls which are affordable and easy to use by people with cognitive, visual, hearing or physical impairments. (Paragraph 97)
18. The Government and Ofcom should take steps to ensure that access to a wide range of subtitled and audio described programmes is available on all digital television platforms. (Paragraph 98)
19. We are concerned that the complexity of the digital switchover management structure leaves lines of accountability blurred. There need to be clearer chains of command with precise responsibilities specifically defined. We also believe that there is a danger that Digital UK will lack the authority and resources to manage the interests of a diverse group of industry stakeholders should their bonds of mutual self-interest come under strain. (Paragraph 104)
20. Both convergence in communications technologies and the need for clear political supervision and accountability indicate that the digital switchover programme needs a visible champion and that this should be an identified Government Minister. We recommend that this "lead" Minister should be within the Department for Culture, Media and Sport as the lead Department in this process. (Paragraph 109)
21. We recommend that Ofcom and Digital UK initiate DTT reception trials in a variety of geographical regions and settings. (Paragraph 118)
22. For new transmitter masts, we recommend that local planning authorities be formally reminded of the Government's policy on digital switchover in terrestrial broadcasting and that this should inform the necessary planning applications. (Paragraph 121)
23. We recommend that the Government issues guidance to local planning authorities to ensure that proposals to modify existing transmitter masts are dealt with expeditiously and in the context of national policy. (Paragraph 122)
24. Digital UK must monitor closely the operation and consequences of the transition period between the loss of BBC Two and complete analogue switch-off in any given region. A longer period should be adopted if there are indications that this is necessary to protect consumer interests. (Paragraph 126)
25. We recommend that the Government and Digital UK conduct a comprehensive economic and technical digital switchover trial aimed specifically at multiple dwelling units. The scope of such a trial should be such as to include local authorities, registered social landlords and private landlords. (Paragraph 134)
26. We recommend that the Government re-examines planning regulations and procedures to ensure greater equity in their application to satellite dishes and aerials. At the very least, local planning authorities should be encouraged, through formal guidance, to exercise the discretion they have in the application of planning regulations to satellite dishes. (Paragraph 137)

27. Digital UK should provide the public with clear information on the prices and capabilities of digital receiving equipment across all platforms. (Paragraph 140)
28. Set-top boxes and other digital receiving equipment should be labelled with information on their energy efficiency. (Paragraph 142)
29. The BBC's services are, quite rightly, available on all digital platforms. The Corporation must be platform-neutral in all its digital promotion and information campaigns. (Paragraph 146)
30. Digital UK should provide consumers with information on the prices of equipment and services associated with digital switchover. The latter should include the cost of aerial installations under different circumstances. (Paragraph 151)
31. Digital UK should monitor closely aerial installation practices to ensure that consumers are properly protected. The importance of using accredited installers should be reinforced through widespread advertising and information campaigns. This must be matched by tough action by Trading Standards and other enforcement bodies against "cowboys" attempting to exploit lack of understanding about the technical requirements of the switchover process. (Paragraph 152)
32. In view of the Government's assessment of the economic benefits of digital switchover, we believe it is appropriate that households that consequentially lose all access to television with their existing receiving equipment, including those that fall outside the targeted assistance scheme, should be given assistance to migrate to alternative platforms. (Paragraph 157)
33. Overall, the case for switching off analogue television to extend coverage of the digital terrestrial platform offers clear benefits, but also carries significant risks. By addressing the potential pitfalls identified, the Government can mitigate any adverse consequences and maximise the advantages that digital television undoubtedly offers. (Paragraph 159)
34. The Government's adoption of a firm and early timetable for analogue switch-off is a bold, and some would say brave, decision. The timetable appears to be technically realistic, but if it is to be achieved with minimum disruption and maximum support the process will require timely regulation by Ofcom, effective management by Digital UK and clear leadership by Government. (Paragraph 160)

## Formal minutes

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**Tuesday 21 March 2006**

Members present:

Mr John Whittingdale, in the Chair

Janet Anderson

Philip Davies

Mr Nigel Evans

Mr Paul Farrelly

Mr Mike Hall

Alan Keen

Adam Price

Helen Southworth

Draft Report (*Analogue switch-off*), proposed by the Chairman, brought up and read.

*Ordered*, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 160 read and agreed to.

Summary read and agreed to.

*Resolved*, That the Report be the Second Report of the Committee to the House.

*Ordered*, That the Chairman do make the report to the House.

Several papers were ordered to be appended to the Minutes of Evidence.

*Ordered*, That the Appendices to the Minutes of Evidence taken before the Committee be reported to the House.

*Ordered*, That embargoed copies of the Report be made available, in accordance with the provisions of Standing Order No. 134.

[Adjourned till Tuesday 28 March at 10.00 am

# Witnesses

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## Tuesday 8 November 2005

Page

<b>Mr Chris Goodall, Dr Andrew Wheen</b> , Mentor, <b>Dr Jeremy Klein</b> , Scientific Generics and <b>Mr David Elstein</b>	Ev 15
<b>Ms Colette Bowe</b> , Ofcom Consumer Panel, <b>Ms Jocelyn Hay</b> , Voice of the Listener and Viewer, <b>Ms Leen Petre</b> , RNIB and <b>Mr David Sinclair</b> , Help the Aged	Ev 45

## Tuesday 15 November 2005

<b>Ms Caroline Thomson</b> , Director of Strategy, <b>Mr Tim Davie</b> , Director of Marketing, Communications and Audiences, and <b>Mr Graham Plumb</b> , Head of Technology, BBC Distribution, BBC	Ev 62
<b>Mr Tim Jenks</b> , Technical Executive, Confederation of Aerial Industries Ltd, <b>Mr Danny Churchill</b> , representing DSG International Plc, <b>Mr Laurence Harrison</b> , Director of Consumer Electronics, Intellect and <b>Mr Adrian Northover-Smith</b> , Digital Development Manager, Sony UK Digital	Ev 81

## Tuesday 6 December 2005

<b>Mr Clive Jones</b> , Chief Executive Officer, ITV Regions and News Group, and <b>Mr Christy Swords</b> , Director of Regulatory Affairs, ITV	Ev 90
<b>Mr Andy Duncan</b> , Chief Executive and <b>Mr David Scott</b> , Consultant, Channel 4, <b>Ms Iona Jones</b> and <b>Mr Arshad Rasul</b> , Director of Technology, S4C	Ev 105
<b>Ms Jane Lighting</b> , Chief Executive, <b>Mr Grant Murray</b> , Director of Finance, and <b>Ms Sue Robertson</b> , Director of Corporate Affairs, Five	Ev 114

## Tuesday 13 December 2005

<b>Mr Stephen Carter</b> , Chief Executive, <b>Mr Ed Richards</b> , Executive Board Member and <b>Mr Greg Bensberg</b> , Senior Adviser, Digital Switchover, Ofcom	Ev 129
<b>Mr Ford Ennals</b> , Chief Executive, <b>Mr Barry Cox</b> , Chairman, and <b>Mr Mike Hughes</b> , Broadcast Director, Digital UK	Ev 156

## Tuesday 20 December 2005

<b>Mr Steven Holebrook</b> , Managing Director, Terrestrial Broadcast Solutions, <b>Mr Alan Watson</b> , Consultant to Arqiva (and also MD to TrinityStar), Arqiva, <b>Mr Steven Marshall</b> , Chief Executive and <b>Mr John Ward</b> , Director of Network Operations and Engineering, National Grid Wireless Ltd	Ev 183
<b>Mr Keith Monserrat</b> , Director of Policy and Communications, NTL, and <b>Mr Roger Lynch</b> , Chairman and Chief Executive, Video Networks Ltd	Ev 193
<b>Mr Mike Darcey</b> , Group Director of Strategy, <b>Ms Dawn Airey</b> , Managing Director, Sky Networks and <b>Mr Martin Le Jeune</b> , Head of Public Affairs, BSkyB	Ev 206

## Tuesday 10 January 2006

<b>Mr James Purnell MP</b> , Parliamentary Under-Secretary of State, Department for Culture, Media and Sport and <b>Rt Hon Alun Michael MP</b> , Minister for Industry and the Regions, Department of Trade and Industry	Ev 235
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## List of written evidence

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	<i>Page</i>
1 Chris Goodall	Ev 1
2 Dr Jeremy Klein, Scientific Generics	Ev 6
3 Mentor Technology International Ltd	Ev 8
4 David Elstein	Ev 12, 27
5 Ofcom Consumer Panel	Ev 27
6 Voice of the Listener and Viewer	Ev 29
7 Royal National Institute of the Blind	Ev 36, 53
8 Help the Aged	Ev 39, 55
9 BBC	Ev 56, 72
10 Confederation of Aerial Industries Ltd	Ev 72
11 Intellect	Ev 75
12 DSG International Plc	Ev 78
13 Channel 4	Ev 97
14 S4C	Ev 102
15 Five	Ev 112
16 Ofcom	Ev 118
17 Digital UK	Ev 142, 153, 154, 164, 172, 174
18 Arqiva	Ev 176, 338
19 National Grid Wireless Ltd	Ev 179, 338
20 NTL	Ev 189
21 BSkyB	Ev 200, 213
22 Department for Culture, Media and Sport	Ev 216, 250
23 DCMS and DTI	Ev 228
24 Dave Rushton, Institute of Local Television and Local TV Advisory Group ACTO	Ev 256
25 Mike Howe	Ev 256
26 Pam Coughlan	Ev 257
27 British Pensioners and Trade Union Action Association	Ev 257
28 Motion Picture Association	Ev 258
29 Hearing Concern	Ev 259
30 Equity	Ev 263
31 Royal National Institute for Deaf People	Ev 267
32 Community Service Volunteers	Ev 269
33 National Consumer Council	Ev 273
34 Age Concern	Ev 281
35 Cisco Systems	Ev 285
36 Electronic Frontier Foundation	Ev 288
37 Sense	Ev 297
38 Professor Vincent Porter	Ev 299
39 Jill Watt	Ev 299
40 Data Broadcasting International and SimpleActive Ltd	Ev 299
41 O <sub>2</sub>	Ev 302

42	John Orton	Ev 302
43	POST	Ev 304
44	City Broadcasting	Ev 315
45	Oxford University Programme in Comparative Media Law and Policy	Ev 316
46	Hutchison 3G UK Ltd	Ev 332
47	TrinityStar Associates Ltd	Ev 334
48	BBC Radio 4	Ev 339

## List of unprinted written evidence

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Additional papers have been received from the following and have been reported to the House but to save printing costs they have not been printed and copies have been placed in the House of Commons Library where they may be inspected by Members. Other copies are in the Record Office, House of Lords and are available to the public for inspection. Requests for inspection should be addressed to the Record Office, House of Lords, London SW1. (Tel 020 7219 3074). Hours of inspection are from 9:30am to 5:00pm on Mondays to Fridays.

Chris Goodall

British Video Association

Digital UK

DCMS

DSG International Plc (Dixons)

Martin Hoscik

House of Commons Library

POST

Vincent Mather

SWEDBAG

David Parker

Federal Economics and Labour Ministry, Berlin

Rundfunk Berlin Brandenburg

## Reports from the Committee since 2006

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### Session 2005–06

First Special Report	Maritime Heritage and Historic Ships: Replies to the Committee's Fourth Report of Session 2004-05	HC 358
First Report	Broadcasting Rights for Cricket	HC 720