



# Self help TV relays and digital switchover

Proposal to license digital community low power relay  
transmitters

Consultation

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## Section 1

# Executive Summary

- 1.1 This consultation seeks views on Ofcom's proposals to license digital community low power relay transmitters, commonly referred to as "self help relays". Digital self help relays, subject to spectrum availability, could help maximise the coverage and availability of digital television throughout the UK following digital switchover<sup>1</sup>. Ofcom wants to actively seek to facilitate self help relays where they can help extend the terrestrial coverage of Public Service Broadcasting (PSBs) channels in the future.
- 1.2 The Home Office first introduced self helps relays in 1980, to help small communities have access to the PSB TV channels: BBC1, BBC2 and ITV, and later Channel 4, S4C and Five. The communities were too small for broadcasters to fund additional analogue relays.<sup>2</sup> These schemes were usually funded by the local community and were designed to cover relatively small areas and numbers of households. Later schemes were set up (particularly in urban areas) to help overcome problems with TV reception caused, for example, by new buildings such as a football stadium or high rise buildings.<sup>3</sup>
- 1.3 The current self help licences do not allow for digital transmission. Following digital switchover, Digital Terrestrial Television (DTT) will be extended to approximately 98.5% of homes in the UK. Some communities will no longer require a self help relay, because some of the problems experienced in analogue such as "ghosting" are less likely to happen with digital transmissions. For others, Digital TV is or will be available directly via other platforms such as digital satellite, cable, or TV over broadband, and the self help relay may be no longer necessary. However, other communities may still have a need for a digital self help relay.
- 1.4 This consultation seeks to establish what interest exists in providing digital self help relays following digital switchover and also seeks views on the proposed licensing regime.
- 1.5 Ofcom is proposing that all existing self help operators where a relay is still needed after DSO should be able to apply for digital self help licences (subject to frequencies being available). Ofcom also proposes to make licences available for new areas where problems with reception arise, subject to spectrum availability and demand.

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<sup>1</sup> Digital Switchover is the name given to the national programme of moving terrestrial television transmissions, received through an aerial, from analogue to digital.

<sup>2</sup> The broadcasters at that time were only funding the adoption of relays which served communities greater than 500 households, this was subsequently reduced to communities greater than 200 households.

<sup>3</sup> Buildings can result in poor quality terrestrial TV reception by causing low field strength of a wanted TV transmission due to shadowing, and/or delayed image interference (ghosting) due to reflections.

## Section 2

# Introduction

### Self help relays and digital switchover

- 2.1 Since the 1980s, communities with poor analogue terrestrial TV reception have been able to set up their own Community Television Relay Service (commonly known as and referred to hereafter as “self help relays”), to relay the analogue signals for BBC1, BBC2, ITV1, Channel 4 or S4C, and in some cases, Five, from a transmitter in the terrestrial TV transmission network.
- 2.2 There are approximately 260 self help relays currently licensed by Ofcom under the Wireless Telegraphy Act 1949 (as amended) (hereafter referred to as “the WTA”). Most are in rural areas in Scotland and Wales to help small communities overcome problems with reception caused by the landscape (for example mountains). Some self help relays are in urban areas and some help overcome problems with reception caused by new structures (for example a high rise building or a wind farm).
- 2.3 Not all of the licensed relays are being used. Ofcom commissioned a study on the current use of self help relays to inform this consultation, and estimates that up to 12,000 households may currently receive television through a self help relay. A list of self help relays is provided in Annex 7.
- 2.4 Starting in late 2007 in Whitehaven and ending in 2012, terrestrial television services in the UK will go completely digital, region by region. This process is called digital switchover (DSO). The UK’s old terrestrial television broadcast signal (known as “analogue”) will be switched off and replaced with a “digital” signal. Digital TV can improve the quality of the TV picture and it uses the spectrum more efficiently so that more channels can be provided.
- 2.5 Digital television is available on a range of platforms, including satellite and cable, and new platforms, like television over broadband, may become increasingly available. The digital terrestrial network is being built out so that virtually everyone can have access to a choice of platforms. The level of terrestrial coverage at switchover is intended to match existing coverage – around 98.5% of households - in line with the Government’s commitment that everyone who can currently receive analogue TV should be able to receive digital TV.
- 2.6 Current self help licences are analogue only and will not be valid for digital transmissions. It is also likely that a proportion of the transmission equipment used for self help relays would need to be re-engineered for the relay to work in a digital environment. Ofcom last consulted about the future of self help relays in its consultation on Planning Options for Digital Switchover, published on 14 February 2005. A number of respondents expressed interest in self help relays continuing to operate after switchover.<sup>4</sup>
- 2.7 It is possible that households that currently rely on a self help relay to receive their TV channels may have improved reception after DSO and no longer need a relay. Ofcom estimates that up to one third of current self help relays may not be needed after DSO for this reason. It is also possible that there may be a small number of

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<sup>4</sup> Planning Options for Digital Switchover, <http://www.ofcom.org.uk/consult/condocs/pods1/main/>, see in particular question 14.

areas where there may be demand for a new relay. However, it is likely that most areas that currently have good analogue reception will also have good reception after DSO.

- 2.8 Ofcom proposes to make available WTA licences for digital self help relays, so that areas with poor terrestrial TV reception can receive digital terrestrial television after DSO. Although Ofcom will actively seek to allow self help relays where they can help extend the terrestrial coverage of public service channels in the future, the licensing of self help relays will always be subject to the availability of spectrum. Ofcom will do its best to find frequencies for digital self help relays, in particular where these are to replace existing analogue self help relays, but Ofcom cannot guarantee that suitable spectrum can be made available in every case.
- 2.9 Ofcom is keen to ensure that communities that currently rely on a self help relay to receive television will not lose reception at DSO, and Ofcom and the BBC are proposing to meet the cost for frequency planning for areas currently served by a self help relay (but not for new relays). Any costs related to the self help relay (installation, equipment, operation etc) would be met by the operator of the relay. A fee will also be payable for the Wireless Telegraphy Act licence for the relay, though in most cases this should only be a modest administrative charge (see section 4 for more information on fees).
- 2.10 Each community currently using a self help relay to receive television will need to decide whether it still wants a relay after DSO. They may need to consider whether people in the community still rely on the relay to receive television, what other platforms are available and, potentially, whether it will be worth upgrading the transmitting equipment.
- 2.11 From the autumn of 2007 Ofcom proposes to provide detailed advice for self help operators to assist them in their decision as to whether to upgrade their equipment.
- 2.12 We are seeking views on this proposal from all interested parties, including people who operate self help relays or who rely on self help relays as their main source of television reception. We are also inviting expressions of interest in digital self help relays for areas currently using a self help relay to receive television and from parties interested in operating a self help relay in new areas.

## Section 3

# Proposal to license digital self help relays

## Legal background and Ofcom's duties

- 3.1 Ofcom's principal duty in carrying out its functions is "to further the interests of citizens in relation to communications matters; and to further the interests of consumers in relevant markets, where appropriate by promoting competition"<sup>5</sup>. In doing so, Ofcom is required to secure, among other things, the "availability throughout the United Kingdom of a wide range of television and radio services which (taken as a whole) are both of high quality and calculated to appeal to a variety of tastes and interests" and "the maintenance of a sufficient plurality of providers of different television and radio services"<sup>6</sup>.
- 3.2 Ofcom must also have regard to "the desirability of promoting the fulfilment of the purposes of public service television broadcasting in the United Kingdom", "the opinions of consumers in relevant markets and of members of the public generally" and "the different interests of persons in the different parts of the United Kingdom, of the different ethnic communities within the United Kingdom and of persons living in rural and in urban areas"<sup>7</sup>.
- 3.3 Further, in the light of the clear benefits which accrue to the UK and to citizens and consumers from digital switchover, Ofcom has concluded that it is under an implicit duty to promote digital switchover in a proportionate way. This obligation is a consequence of a number of Ofcom's statutory duties<sup>8</sup>. The Secretary of State has published a timetable for DSO, region by region. The first region to switch is Border, starting with the Whitehaven transmitter and its associated relays in Cumbria towards the end of 2007. The full timetable is set out in Annex 6.
- 3.4 Ofcom considers that it would be in the interest of consumers who live in areas with poor terrestrial television reception to have access to digital television and, where possible, to have access to a choice of delivery platforms after DSO. In this consultation, Ofcom proposes to set up a licensing regime for digital self help relays. The availability of the option of using a self help relay could be particularly important to people in rural areas, and self help relays could be a way of extending digital terrestrial coverage of the public service television channels throughout the UK.

## Proposal for areas currently served by a self help relay

- 3.5 Ofcom proposes to make available WTA licences for digital self help relays in all areas currently served by a self help relay, provided a self help relay is still needed in that area to receive terrestrial television after DSO, and a suitable frequency can be found.

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<sup>5</sup> Communications Act 2003 ("the CA") section 3(1).

<sup>6</sup> CA section 3(2)(c) and (d).

<sup>7</sup> CA section 3(4)(a), (k) and (l).

<sup>8</sup> For example, Ofcom is required to secure the optimal use of the radio spectrum, and the availability throughout the UK of a wide range of television and radio services which are both of high quality and calculated to appeal to a variety of tastes and interests. See CA section 3(2)(a) and (c).

## **Licence term and conditions**

- 3.6 Licences would be issued for a period of five years (renewable subject to compliance with licence conditions and spectrum availability).
- 3.7 Licences would be issued under the WTA<sup>9</sup>. The licences would authorise the use of transmission equipment for the purpose of relaying one or more television multiplex, and set out the technical parameters for the service.

## **Costs**

- 3.8 Ofcom and the BBC have agreed to meet the cost of frequency planning for areas currently served by self help relays. Frequency planning is discussed in more detail in section 4 below, which also contains a consultation question on frequency planning.
- 3.9 All other costs, for conversion of the relay equipment or any other related matters, would have to be met by the relay operator.
- 3.10 Ofcom proposes to charge a fee for the licence. In most cases, this is expected to be £75 for a five year licence. Fees are discussed in more detail in section 4 below, which also contains a consultation question about fees.

## **Expressions of interest**

- 3.11 Ofcom is inviting expressions of interest in digital self help relays from persons currently operating a self help relay, or persons who wish to take on the operation of a relay in an area currently served by a self help relay. We are writing to all existing self help licensees inviting them to contact Ofcom if they want to continue to operate a relay. Any other person wanting to submit an expression of interest should contact Ofcom (see Annex 10 for contact details).
- 3.12 When this consultation has closed, Ofcom will consider the responses and decide whether to set up a licensing regime for digital self help relays. If so, Ofcom will make an initial assessment of the expressions of interest received and take them into account when considering the predicted digital terrestrial coverage after DSO and frequency availability for digital self help relays.

## **Award process**

- 3.13 Ofcom proposes to invite applications for WTA licences for self help relays for all areas currently served by a self help relay, provided a self help relay is still needed in that area to receive terrestrial television after DSO, and a suitable frequency can be found.
- 3.14 Ofcom proposes to invite applications in a region by region sequence, ahead of the roll-out of DSO in each region. The first region will be Border, which is scheduled to switch in 2007-2009, followed by Westcountry and Granada in 2009 and Wales in 2009-2010. The invitation to apply will be published on the Ofcom website and sent by post to existing self help licensees.

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<sup>9</sup> Licences will be issued under section 8 of the Wireless Telegraphy Act 2006. This new Act was made on 8 November 2006 and comes into force on 8 February 2007. It consolidates and replaces all previous enactments concerning spectrum use.



- 3.15 Ofcom would not generally expect to receive more than one application per area currently served by a self help relay. Ofcom will write to all current holders of self help relay licences, inviting them to apply for a digital self help licence. In cases of competing applications Ofcom will normally award the licence to the incumbent on the grounds that they are more likely to provide a continuation of service. In the case of competing new applicants, Ofcom will award licences for digital self help relays on a first come, first served basis.

### **Switching the self help relay from analogue to digital**

- 3.16 From the autumn of 2007 Ofcom proposes to provide detailed advice for self help operators to assist them in their decision as to whether to upgrade their equipment. However, ultimately it will be for each self help relay operator to decide how to manage the switch from analogue to digital and agree the commencement date of the new licence with Ofcom. According to the current DSO plan, BBC2 will be the first channel to switch over from analogue to digital in each region. BBC2 will be followed approximately one month later, by the remaining analogue channels, and this period may be a suitable time for the self help relay also to change from analogue to digital.

*Question 1: Do you agree with Ofcom's proposal to license digital self helps for areas currently served by a self help relay, and how we propose to make licences available? If not, please give your reasons.*

### **Proposal for areas not currently served by a self help relay**

- 3.17 Ofcom is currently involved in detailed planning for DSO and can predict digital terrestrial coverage to a relatively high degree of accuracy. However, there is likely to be some small localised coverage issues that we will not know about until DSO has been completed in each area. Ofcom considers that digital self help relays may be an option for extending future coverage of public service channels to such areas.
- 3.18 Where areas with poor digital terrestrial reception are identified (before or after DSO), whether as a result of changes to coverage made apparent by DSO, or by new buildings or structures, Ofcom proposes to adopt the policy that it will consider applications for new self help relays. Ofcom proposes to make available WTA licences for digital self help relays for areas not currently served by a self help relay after DSO, subject to spectrum availability. Ofcom can not at this stage guarantee that suitable spectrum can be made available in every case.

### **Licence term and conditions**

- 3.19 Licences would be issued for a period of five years (renewable subject to compliance with licence conditions and spectrum availability).
- 3.20 Licences would be issued under the WTA. The licences would authorise the use of transmission equipment for the purpose of relaying one or more television multiplex, and set out the technical parameters for the service.

### **Costs**

- 3.21 Ofcom proposes that the cost of frequency planning for self help relays for areas not currently served by a relay should be met by the self help operator. Frequency planning is discussed in more detail in section 4 below, which also contains a consultation question on frequency planning.

- 3.22 All other costs, for the relay equipment or any other related matters, would be met by the relay operator.
- 3.23 Ofcom proposes to charge a fee for the licence. In most cases, this is expected to be £75 for a five year licence. Fees are discussed in more detail in section 4 below, which also contains a consultation question about fees.

### **Award process**

- 3.24 Ofcom proposes to accept applications for WTA licences for self help relays for areas that are not currently served by a self help relay at any time once those areas have been identified (before or after DSO in that area).
- 3.25 Ofcom will consider applications for self helps for new areas as and when they are received, on a case by case basis. Ofcom will award licences for digital self help relays on a first come, first served basis.
- 3.26 Whether a licence can be issued or not will depend on spectrum being available for digital self help relays. Ofcom cannot at this stage guarantee that suitable spectrum can be made available in every case.

*Question 2: Do you agree with Ofcom's proposal to license digital self helps for areas not currently served by a self help relay, and how we propose to make available licences? If not, please give your reasons.*

## Section 4

# Frequency planning and fees

- 4.1 All self help relays use interleaved spectrum in the UHF spectrum band used for terrestrial television broadcasting. Ofcom has to secure, in the carrying out of its functions, the optimal use of the radio spectrum. Ofcom favours a market driven and technology neutral approach to making spectrum available.<sup>10</sup>

## Frequency planning

- 4.2 Ofcom will do its best to find suitable frequencies for digital self helps, in particular for areas where communities currently rely on a self help relay for their television reception. However, Ofcom will only issue a WTA licence if the use of the frequency has been cleared and there is no conflict with other (planned or existing) users. Ofcom cannot guarantee that suitable spectrum can be made available in every case.
- 4.3 Each digital self help relay will need to be planned so that it can be operated without interfering with other services. This will be necessary for relays both for areas currently served by a self help relay and potential relays for new areas. The cost of the planning depends on how complex it is. Ofcom estimates that the cost for planning a self help relay would range between £1500 and £2500.
- 4.4 Ofcom is keen to ensure that communities that currently rely on a self help relay to receive television will not lose reception at DSO, and proposes that the cost for frequency planning for existing self help relays will be met by Ofcom and the BBC. For new self help relays (for areas not currently served by a self help relay) Ofcom proposes that the cost for frequency planning is met by the operator of the relay.
- 4.5 In most cases, Ofcom expects that digital self help relays will use the same frequencies as the DTT multiplexes to relay the services to a geographical area that would not otherwise be served. As the same frequencies would be used, there should be little or no opportunity cost associated with the relay, and therefore no reason to apply incentive pricing to encourage more efficient use.<sup>11</sup> If Ofcom receives proposals for digital self help relays that would require the use of additional spectrum, these will be considered on a case by case basis and in the light of the information about all other potential uses of the spectrum. Additional fees, consistent with the application of incentive pricing, may be appropriate in these cases.

*Question 3: Do you agree with how Ofcom proposes to deal with the frequency planning for self help relays? If not, please give your reasons.*

## Fees

- 4.6 The fee for a WTA licence for an analogue self help relay is currently £10 per year. The fees have not increased since they were initially set at £50 for a five year licence

<sup>10</sup> Ofcom's Spectrum Framework Review and the Spectrum Framework Review Implementation Plan set out its plans for radio spectrum in the medium and long term and are available on the Ofcom website at <http://www.ofcom.org.uk/radiocomms/sfr/>.

<sup>11</sup> See Ofcom's consultation on the Future pricing of spectrum used for terrestrial broadcasting, available at <http://www.ofcom.org.uk/consult/condocs/futurepricing/summary/>.

period by the DCMS in the early 1990s (management of the self help licences was assumed by Ofcom in 2004).

- 4.7 Ofcom proposes to charge a set fee of £75 for a five year WTA licence for a digital self help relay, assuming the relay does not require the use of any additional spectrum. The £75 fee is consistent with proposals for the minimum fee for WTA licences in other sectors of use.
- 4.8 Ofcom will shortly be making further amendments to the Wireless Telegraphy Licence Charges Regulations 2005 which could include the proposed fee for self help licences. Ofcom would issue a statutory notice prior to the implementation of the new regulations detailing the new licence charges.

*Question 4: Do you agree with Ofcom's proposed fee for WTA licences for self help relays? If not, please give your reasons.*

## Annex 1

# Responding to this consultation

### How to respond

- A1.1 Ofcom invites written views and comments on the issues raised in this document, to be made **by 5pm on 1 March 2007**.
- A1.2 Ofcom strongly prefers to receive responses using the online web form at <http://www.ofcom.org.uk/consult/condocs/selfhelp/howtorespond/form>, as this helps us to process the responses quickly and efficiently. We would also be grateful if you could assist us by completing a response (see Annex 3), to indicate whether or not there are confidentiality issues. This response coversheet is incorporated into the online web form questionnaire.
- A1.3 For larger consultation responses - particularly those with supporting charts, tables or other data - please email [sairah.majeed@ofcom.org.uk](mailto:sairah.majeed@ofcom.org.uk) attaching your response in Microsoft Word format, together with a consultation response coversheet.
- A1.4 Responses may alternatively be posted or faxed to the address below, marked with the title of the consultation.
- Sairah Majeed (desk 03:55)  
Ofcom  
TV Planning & Licensing  
Riverside House  
2A Southwark Bridge Road  
London SE1 9HA
- Fax: 020 7783 4303
- A1.5 Note that we do not need a hard copy in addition to an electronic version. Ofcom will acknowledge receipt of responses if they are submitted using the online web form but not otherwise.
- A1.6 It would be helpful if your response could include direct answers to the questions asked in this document, which are listed together at Annex 4. It would also help if you can explain why you hold your views.

### Further information

- A1.7 If you want to discuss the issues and questions raised in this consultation, or need advice on the appropriate form of response, please contact Erika Forsberg on 020 7981 3885 or Sairah Majeed on 020 7783 4376.

### Confidentiality

- A1.8 We believe it is important for everyone interested in an issue to see the views expressed by consultation respondents. We will therefore usually publish all responses on our website, [www.ofcom.org.uk](http://www.ofcom.org.uk), ideally on receipt (when respondents confirm on their response coversheet that this is acceptable).

- A1.9 All comments will be treated as non-confidential unless respondents specify that part or all of the response is confidential and should not be disclosed. Please place any confidential parts of a response in a separate annex so that non-confidential parts may be published along with the respondent's identity.
- A1.10 Ofcom reserves its power to disclose any information it receives where this is required to facilitate the carrying out of its statutory functions.
- A1.11 Please also note that copyright and all other intellectual property in responses will be assumed to be licensed to Ofcom to use in order to meet its legal requirements. Ofcom's approach on intellectual property rights is explained further on its website at <http://www.ofcom.org.uk/about/accoun/disclaimer/>

### Next steps

- A1.12 Following the end of the consultation period, Ofcom intends to publish a statement.
- A1.13 Please note that you can register to receive free mail Updates alerting you to the publications of relevant Ofcom documents. For more details please see: [http://www.ofcom.org.uk/static/subscribe/select\\_list.htm](http://www.ofcom.org.uk/static/subscribe/select_list.htm)

### Ofcom's consultation processes

- A1.14 Ofcom seeks to ensure that responding to a consultation is easy as possible. For more information please see our consultation principles in Annex 2.
- A1.15 If you have any comments or suggestions on how Ofcom conducts its consultations, please call our consultation helpdesk on 020 7981 3003 or e-mail us at [consult@ofcom.org.uk](mailto:consult@ofcom.org.uk) . We would particularly welcome thoughts on how Ofcom could more effectively seek the views of those groups or individuals, such as small businesses or particular types of residential consumers, who are less likely to give their opinions through a formal consultation.
- A1.16 If you would like to discuss these issues or Ofcom's consultation processes more generally you can alternatively contact Vicki Nash, Director Scotland, who is Ofcom's consultation champion:

Vicki Nash  
Ofcom  
Sutherland House  
149 St. Vincent Street  
Glasgow G2 5NW

Tel: 0141 229 7401  
Fax: 0141 229 7433

Email [vicki.nash@ofcom.org.uk](mailto:vicki.nash@ofcom.org.uk)

## Annex 2

# Ofcom's consultation principles

A2.1 Ofcom has published the following seven principles that it will follow for each public written consultation:

### Before the consultation

A2.2 Where possible, we will hold informal talks with people and organisations before announcing a big consultation to find out whether we are thinking in the right direction. If we do not have enough time to do this, we will hold an open meeting to explain our proposals shortly after announcing the consultation.

### During the consultation

A2.3 We will be clear about who we are consulting, why, on what questions and for how long.

A2.4 We will make the consultation document as short and simple as possible with a summary of no more than two pages. We will try to make it as easy as possible to give us a written response. If the consultation is complicated, we may provide a shortened version for smaller organisations or individuals who would otherwise not be able to spare the time to share their views.

A2.5 We will normally allow ten weeks for responses to consultations on issues of general interest.

A2.6 There will be a person within Ofcom who will be in charge of making sure we follow our own guidelines and reach out to the largest number of people and organizations interested in the outcome of our decisions. This individual (who we call the consultation champion) will also be the main person to contact with views on the way we run our consultations.

A2.7 If we are not able to follow one of these principles, we will explain why. This may be because a particular issue is urgent. If we need to reduce the amount of time we have set aside for a consultation, we will let those concerned know beforehand that this is a 'red flag consultation' which needs their urgent attention.

### After the consultation

A2.8 We will look at each response carefully and with an open mind. We will give reasons for our decisions and will give an account of how the views of those concerned helped shape those decisions.

## Annex 3

# Consultation response cover sheet

- A3.1 In the interests of transparency, we will publish all consultation responses in full on our website, [www.ofcom.org.uk](http://www.ofcom.org.uk), unless a respondent specifies that all or part of their response is confidential. We will also refer to the contents of a response when explaining our decision, without disclosing the specific information that you wish to remain confidential.
- A3.2 We have produced a coversheet for responses (see below) and would be very grateful if you could send one with your response (this is incorporated into the online web form if you respond in this way). This will speed up our processing of responses, and help to maintain confidentiality by allowing you to state very clearly what you don't want to be published. We will keep your completed coversheets confidential.
- A3.3 The quality of consultation can be enhanced by publishing responses before the consultation period closes. In particular, this can help those individuals and organisations with limited resources or familiarity with the issues to respond in a more informed way. Therefore Ofcom would encourage respondents to complete their coversheet in a way that allows Ofcom to publish their responses upon receipt, rather than waiting until the consultation period has ended.
- A3.4 We strongly prefer to receive responses via the online web form which incorporates the coversheet. If you are responding via email, post or fax you can download an electronic copy of this coversheet in Word or RTF format from the 'Consultations' section of our website at [www.ofcom.org.uk/consult/](http://www.ofcom.org.uk/consult/).
- A3.5 Please put any confidential parts of your response in a separate annex to your response, so that they are clearly identified. This can include information such as your personal background and experience. If you want your name, address, other contact details, or job title to remain confidential, please provide them in your coversheet only so that we don't have to edit your response.



## Cover sheet for response to an Ofcom consultation

### BASIC DETAILS

Consultation title: **SELF HELP TV RELAYS AND DIGITAL SWITCHOVER**

To (Ofcom contact): Sairah Majeed, TV Planning and Licensing

Name of respondent:

Representing (self or organisation/s):

Address (if not received by email):

### CONFIDENTIALITY

What do you want Ofcom to keep confidential?

Nothing	<input type="checkbox"/>	Name/contact details/job title	<input type="checkbox"/>
Whole response	<input type="checkbox"/>	Organisation	<input type="checkbox"/>
Part of the response	<input type="checkbox"/>	If there is no separate annex, which parts?	

### DECLARATION

I confirm that the correspondence supplied with this cover sheet is a formal consultation response. It can be published in full on Ofcom's website, unless otherwise specified on this cover sheet, and I authorise Ofcom to make use of the information in this response to meet its legal requirements. If I have sent my response by email, Ofcom can disregard any standard e-mail text about not disclosing email contents and attachments.

Ofcom seeks to publish responses on receipt. If your response is non-confidential (in whole or in part), and you would prefer us to publish your response only once the consultation has ended, please tick here.

Name

Signed (if hard copy)

## Annex 4

# Consultation questions

### Self help TV relays and digital switchover

*Question 1: Do you agree with Ofcom's proposal to license digital self helps for areas currently served by a self help relay, and how we propose to make available licences? If not, please give your reasons.*

*Question 2: Do you agree with Ofcom's proposal to license digital self helps for areas not currently served by a self help relay, and how we propose to make available licences? If not, please give your reasons.*

*Question 3: Do you agree with how Ofcom proposes to deal with the frequency planning for self help relays? If not, please give your reasons.*

*Question 4: Do you agree with Ofcom's proposed fee for WTA licences for self help relays? If not, please give your reasons.*

## Annex 5

# Impact Assessment

## Introduction

- A5.1 The analysis presented in this Annex represents an impact assessment, as defined in section 7 of the Communications Act 2003 (the Act). You should send any comments on this impact assessment to us by the closing date for this consultation. We will consider all comments before deciding whether to implement our proposals.
- A5.2 Impact assessments provide a valuable way of assessing different options for regulation and showing why the preferred option was chosen. They form part of best practice policy-making. This is reflected in section 7 of the Act, which means that generally we have to carry out impact assessments where our proposals would be likely to have a significant effect on businesses or the general public, or when there is a major change in Ofcom's activities. However, as a matter of policy Ofcom is committed to carrying out and publishing impact assessments in relation to the great majority of our policy decisions. For further information about our approach to impact assessments, see the guidelines, Better policy-making: Ofcom's approach to impact assessment, which are on our website:  
[http://www.ofcom.org.uk/consult/policy\\_making/guidelines.pdf](http://www.ofcom.org.uk/consult/policy_making/guidelines.pdf)

## The citizen and/or consumer interest

- A5.3 At digital switchover (DSO) the analogue television signals that the self help relays re-transmit will be switched off, and replaced by digital transmissions. Current self help licences are analogue only and will not be valid for digital transmissions. It is also likely that a proportion of the transmission equipment used for self help relays would need to be re-engineered for the relay to work in a digital environment. While it is possible that some households that currently rely on a self help relay to receive their TV channels may have improved reception after DSO and no longer need a relay, it is also possible that there may be areas where a new relay may be needed for terrestrial reception after DSO.
- A5.4 This impact assessment considers the proposals that Ofcom is making to ensure that citizen consumers who may not be able to receive digital terrestrial television without the help of self help will be able to do so. The main issues concerning the citizen are:
- On the benefits side – the ability to receive digital terrestrial TV coverage after switchover
  - On the costs side – any additional costs of installing the transmitter/changing equipment, antennae/paying licence fees.

## Ofcom's policy objective

- A5.5 Ofcom proposes to make available WTA licences for digital self help relays, so that locations that have poor terrestrial reception will have access to digital television after DSO. Ofcom proposes to invite applications for WTA licences for self help relays for all areas currently served by a self help relay, provided a self help relay is still needed in that area to receive terrestrial television after DSO, and a suitable frequency can be found.

- A5.6 Ofcom proposes to invite applications in a region by region sequence, ahead of the roll-out of DSO in each region. The first region will be Border, which is scheduled to switch in 2007-2009, followed by Westcountry and Granada in 2009 and Wales in 2009-2010. The invitation to apply will be published on the Ofcom website and sent by post to existing self help licensees in that area.
- A5.7 Where areas with poor digital terrestrial reception are identified before or after DSO (whether as a result of changes to coverage made apparent by DSO, or by new buildings or structures), Ofcom proposes to adopt the policy that it will consider applications for new self help relays. Ofcom proposes to make available WTA licences for digital self help relays for areas not currently served by a self help relay subject to spectrum availability. Ofcom can not guarantee that suitable spectrum can be made available in every case.

### Options considered

- A5.8 The two options considered are (a) Do nothing and (b) Make available licences for digital self help relays where required and possible.

### Analysis of the different options

#### Do nothing

- A5.9 Given that the sequence for switching off all analogue signals in the UK is planned to have been completed in 2012, if Ofcom does not provide new licences for digital self help relays, some consumers currently using self helps will be unable to receive digital terrestrial television. This would not only result in a reduction to consumer 'welfare', but Ofcom would also be seen as not fulfilling its objectives of furthering the interests of the citizen consumer, or its implicit duty to promote digital switchover.
- A5.10 The do nothing option therefore has no benefits, but carries the risk that some consumers will be deprived of digital television transmission.

#### Making available licences for digital self help relays

- A5.11 Ofcom intends to make available licences for those areas currently served by self help relays, as well as those which might require a self help relay after DSO. Ofcom is proposing to undertake to, along with the BBC, bear the expenses of frequency planning for areas currently served by a self help relay. Applicants for new areas will have to pay their own planning costs.

#### Benefits of the option

- A5.12 Ofcom is of the view that this approach has many benefits. By awarding licences for digital self help relay transmission where possible and required, it is ensuring that all such consumers affected by the digital switchover are in a position to receive DTT broadcasts as other citizen consumers across the nation.
- A5.13 In addition, by undertaking the frequency planning and attempting to locate suitable frequencies for such transmission, Ofcom also ensures that consumers are not overly burdened with the costs of such exercises. This will provide consumers with information and transparency regarding the process for application of self help relays. Operators of self-help relays can also benefit from some guidance and technical advice from Ofcom.

- A5.14 Given the relatively little amount of spectrum that will be reused as a consequence of self help relay transmission, Ofcom intends that the licence fee should only reflect the administrative costs of the licence. This will also reduce the cost burden on consumers.

#### Costs of the option

- A5.15 Consumers will have to incur costs to install or upgrade self help relay equipment. However, if some current analogue self help relay consumers no longer require digital self help relay, then clearly they will save on current costs, although there may be new applications with a requirement for digital self help relay which will need to incur costs.
- A5.16 Consumers will also have to pay a fee for the licence authorising the use of the equipment; however given that the fee is set at the minimum level of licence fees set by Ofcom for a WTA licence, this is not unduly burdensome. However, consumers who make a request for self-help relay that might result in the use of additional spectrum may be required to pay a price for the use of the additional spectrum and this will constitute an additional cost.
- A5.17 Ofcom will incur costs in administering the licences, but its licence fees would cover such costs.
- A5.18 Ofcom and the BBC will incur costs for frequency planning for areas currently served by a self help relay, but not for potential relays for 'new' areas.

#### Risks of the option

- A5.19 Ofcom does not believe there are any significant risks associated with this approach.

#### **The preferred option**

- A5.20 On balance therefore, Ofcom is of the view that making available licences for digital self help relay licences would benefit consumers by providing them the facility to receive digital transmission when switchover takes place, without imposing undue costs on them.

## Annex 6

## Digital Switchover timetable

A6.1 The following table sets out the regional start dates announced by Government in September 2005, and the regional end dates which Ofcom has incorporated in the multiplex licences. In July this year government announced that Whitehaven in the Border region will switchover at the end of 2007.

Region	DSO regional <b>start</b> dates (DCMS, September 2005)	DSO regional <b>end</b> dates
Border	2008 2nd Half	30 June 2009
West Country	2009 1st Half	30 September 2009
HTV Wales	2009 2nd Half	31 March 2010
Granada	2009 2nd Half	31 March 2010
HTV West	2010 1st Half	30 September 2010
Grampian	2010 1st Half	31 December 2010
Scottish Television	2010 2nd Half	31 March 2011
Yorkshire	2011 1st Half	30 September 2011
Anglia	2011 1st Half	31 December 2011
Central	2011 1st Half	30 September 2011
Meridian	2012 1st Half	30 June 2012
Carlton/LWT	2012 1st Half	30 June 2012
Tyne Tees	2012 2nd Half	31 December 2012
Ulster	2012 2nd Half	31 December 2012
Channel TV		31 March 2013

## Annex 7

## List of current self help relays

## List of self help relay by region

A7.1 The tables below list current self help relays by ITV region. Please note that this may not be an exhaustive list, and that much of the information (in particular the numbers of households that receive television from the relays) are estimates based on a study commissioned by Ofcom to inform this consultation.

## Anglia

Self Help Number	Station	Parent Station		Type	Location	Target Population (households) + other	
306	GT YARMOUTH	11400	TACOLNESTON	T	1 km S town centre	30	
381	LOWESTOFT (2)	11400	TACOLNESTON	T	Rotterdam Rd	125	
445	WITHAM	11500	SUDBURY	T	14 km NE Chelmsford.	118	
459	FELIXSTOWE WEST	11500	SUDBURY	T		1000	+1000 or more homes due to expansion of affected area?
<b>ANGLIA</b>		<b>Active Deflectors: 0</b>					
<b>Self Helps: 4</b>		<b>Transposers: 4</b>		<b>Total households:</b>		<b>1273</b>	

## Borders

Self Help Number	Station	Parent Station		Type	Location	Target Population (households) + other	
299	KENTMERE A	10336	KENDAL	AD	12 km N Kendal	45	
8299	KENTMERE B	299	KENTMETRE A	AD	12 km N Kendal		
215	GREAT LANGDALE	10338	WINDERMERE	AD	14 km NW Windermere	12	Caravan park?
408	PARKCLIFFE	10338	WINDERMERE	AD	7 km S Windermere		mobile caravan park
133	DILLICAR	10338	WINDERMERE	AD	6 km NW Sedbergh	20	
75	KELD	13700	CALDBECK	AD	30 km E Sedbergh	17	
143	CROSBY GARRETT	13700	CALDBECK	AD	35 km N Dumbarton	42	
214	BORELAND	13700	CALDBECK	AD	25 km NE Dumfries	22	School
290	DEEPDALE	13700	CALDBECK	AD	20 km SW Penrith	20	
8112	ESKDALEMUIR B	13700	CALDBECK	AD	45 km NW Carlisle	31	
477	CARSPHAIRN	13700	CALDBECK	T	35 km SE Ayr	84	
490	STANTON	13700	CALDBECK	T	8km W Penrith	251	(low lying area of housing)
8210	ESKDALE:BOOT B	13706	GOSFORTH	AD	20 km SE Whitehaven	27	
84	NEWLUCÉ	13721	CAMBRET HILL	AD	12 km NE Stranraer	50	School
344	BURNBANKS	13733	LOWTHER VALLEY	T	14 km S Penrith	40	
383	ROOKING	13748	GLENRIDDING LINK	T	Patterdale, 18 km SW Penrith	20	
389	HARTSOP	13748	GLENRIDDING LINK	T	20 km SW Penrith	20	
34	GARSDALE	13750	MILLTHROP	T	14 km E Sedbergh	63	(coverage with SH179)
428	GLENTROOL	13721	CAMBRET HILL	AD	15 km NW Newton Stewart	50	School
97	DENT	13731	DENTDALE	AD	10 km E Sedbergh	25	
20	SOURHOPE	16100	SELKIRK	AD	Nr Yetholm	6	
<b>BORDERS</b>		<b>Active Deflectors: 15</b>					
<b>Self Helps: 21</b>		<b>Transposers: 6</b>		<b>Total households:</b>		<b>845</b>	

## Central

Self Help Number	Station	Parent Station		Type	Location	Target Population (households) + other	
387	BURTON (SHOBNALL)	10200	SUTTON COLDFIELD	T	1 km W Burton-on-Trent	60	
432	COALVILLE	10200	SUTTON COLDFIELD	T	18 km NW Leicester	600	
468	SOLIHULL	10200	SUTTON COLDFIELD	T	Land Rover building	400	
463	BRAUNSTONE	11100	WALTHAM	T	5 km SW Leicester city centre	170	
411	WHITTON	14900	RIDGE HILL	T	35 km NW Hereford	40	
<b>CENTRAL Self Helps: 5</b>		<b>Active Deflectors: 0</b>		<b>Transposers: 5</b>		<b>Total households:</b>	<b>1270</b>

## Grampian

Self Help Number	Station	Parent Station		Type	Location	Target Population (households) + other	
251	GLENFINNAN		DSAT	DSAT	20 km WNW Fort William	20	
204	FYVIE	11200	DURRIS	AD	37 km NW Aberdeen	10	Hotel
261	OYNE	11200	DURRIS	AD	33 km NW Aberdeen	11	
395	GLEN TANAR	11200	DURRIS	AD	11 km E Ballater	13	
117	STRATHDON A	11200	DURRIS	T	60 km W Aberdeen	25	
8117	STRATHDON B	11200	DURRIS	T		25	
7117	STRATHDON C	11200	DURRIS	T			'appreciable population'
6117	STRATHDON D	11200	DURRIS	AD			
5117	STRATHDON E	11200	DURRIS	AD			
4117	STRATHDON F	11200	DURRIS	AD			
329	ABERDEEN (OLD TOWN)	11200	DURRIS	T	2 km N city centre	837	(dealer estimate)
466	GLENLIVET	11200	DURRIS	T	15 km E Grantown-on-Spey	70	School
508	HAUGHTON HOUSE C/P	11200	DURRIS	T	1 km N Aford Aberdeenshire	1	150 caravans
512	ABERDEEN-TALISMAN	11200	DURRIS	T	1 km SW city centre	100	
213	GLEN ERROCHTY	12307	BLAIR ATHOLL	AD	55 km NW Perth	17	
501	DUNDEE	12308	TAY BRIDGE	T	Ladywell Avenue	100	
349	CRINANLARICH	12310	KILLIN VP	T	30 km NW Callander	6	
436	LOCH TAY	12310	KILLIN VP	T	30 km SW Pitlochry	30	
460	FILEAN MOR	12327	TUMMEL BRIDGE	T	11 km W Kinloch Rannoch	90	
8460	TALLA-A-BHEITHE	SH460	FILEAN MOR	T			
443	SANDWICK	13402	BRESSAY	T	18 km SW Lerwick	24	
435	HEYLOR	13408	COLLAFIRTH HILL	T	43 km NNW Lerwick	5	
487	OLNA FIRTH	13408	COLLAFIRTH HILL	T	26 km NNW Lerwick	7	
423	CLOUSTA	13409	WEISDALE	T			'number of houses'
15	STRATH HALLADALE	14800	RUMSTER FOREST	AD	Strath Halladale (south)	20	
42	ALTAHARRA	14800	RUMSTER FOREST	AD	30 km N Lairg	20	
91	GLENMORE	14800	RUMSTER FOREST	AD	8 km SE Aviemore	25	1000 caravans
139	KINBRACE	14800	RUMSTER FOREST	AD	22 km NW Helmsdale	20	School
207	STRATHY WEST	14800	RUMSTER FOREST	AD	22 km W Thurso	17	
226	BLANDY	14800	RUMSTER FOREST	AD	50 km W Thurso	20	
400	DAVIOT	14800	RUMSTER FOREST	AD	8 km SE Inverness	7	
8016	STRATHNAVER B	14800	RUMSTER FOREST	AD	48km SW Thurso	21	
8165	U.STRTHNAIRN B	14800	RUMSTER FOREST	AD	20 km S Inverness	8	holiday complex
131	SUISGILL	14800	RUMSTER FOREST	AD			
352	MACDUFF	14800	RUMSTER FOREST	T	30 km W Fraserburgh	30	
462	ARMADALE	14800	RUMSTER FOREST	T	30 km W Thurso	30	
510	PORTSOY C/P	14800	RUMSTER FOREST	T	10 km W Banff	1	60 caravans
169	BORROBOL	14800	RUMSTER FOREST	AD	80 km NE Inverness	7	



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14		BORGIE	14801	BEN TONGUE	AD		45 kn W Thurso	10	
16		STRATHNAVER A	14801	BEN TONGUE	AD		48km SW Thurso	14	
177		BERRIEDALE	15300	KNOCKMORE	AD		90 km NE Invernes,	13	
385		LOCHROSQUE	15300	KNOCKMORE	AD		Lochrosque Lodge 40 km W Dingwall	2	
7289		GLASCARNOCH C	15300	KNOCKMORE	AD				
8177		LANGWELL	15300	KNOCKMORE	AD		90 km NE Invernes	3	
415		CARRON	15300	KNOCKMORE	T		20 km S Elgin	35	
509		TURRIFF C/P	15300	KNOCKMORE	T		Aberdeenshire	1	60 caravans
22		LAGGAN	15302	KINGUSSIE	AD		50 km S Inverness	84	
18		AMAT	15305	BALBLAIR WOOD	AD		30km NW Invergordon	15	
451		CULKIEN	15400	EITSHAL	AD		40 km N Ullapool	18	
8182		STAFFIN B	15400	EITSHAL	AD				
8289		GLASCARNOCH B	15400	EITSHAL	AD		40 km NW Inverness		
114		STRATHKANAIIRD	15400	EITSHAL	AD		8 km N Ullapool	15	
7		TORRIDON V/P	15400	EITSHAL	T		80 km W Inverness	110	
8007		TORRIDON B	SH7	TORRIDON V/P	AD		80 km W Inverness	15	
194		DURNAMUCK	15400	EITSHAL	T		10 km W Ullapool	21	
9		KINLOCHEWE	15400	EITSHAL	T				
151		SEILEBOST	15402	CLETTRAVAL	AD				See TPG
96		CARBOST	15404	SKRIAIG	AD				See TPG
174		INVERINATE	15404	SKRIAIG	AD		15-20 km E Kyle of Lochalsh	126	
225		LUIB	15404	SKRIAIG	AD		Isle of Sky	15	
285		TOTARDOR	15404	SKRIAIG	AD		Isle of Skye	4	
8080		UIG C	15404	SKRIAIG	AD		20 km NW Portree	17	
129		HEAST	15406	DUNCRAIG	AD		Isle of Skye	21	
206		TARSKAVAIG	15406	DUNCRAIG	AD		Isle of Skye	29	
107		KISHORN	15406	DUNCRAIG	AD		70 km W Inverness	29	
126		BALMACARA SQ	15406	DUNCRAIG	AD		3 km E Kyle of Lochalsh	30	
136		ACHMORE	15407	ATTADALE	AD		80 km W Inverness	29	
80		UIG B	15412	UIG	AD		20 km NW Portree	126	
66		RERAIG	15413	ARDINTOUL	AD		6 km E Kyle of Lochalsh	13	
270		AUCHTERTYRE	15413	ARDINTOUL	AD		60 km NNW Fort William	17	
101		GLENELG B	15437	KYLERHEA	T		10 km SE Kyle of Lochalsh	25	
8101		GLENELG I	15437	KYLERHEA	T		10 km SE Kyle of Lochalsh		
7101		GLENELG E	SH101	GLENELG B	AD		10 km SE Kyle of Lochalsh		
3101		GLENELG C	SH101	GLENELG B	AD		10 km SE Kyle of Lochalsh		
8092		SHIELFOOT	SH101	GLENELG B	T		44 km W Fort William	10	
26		BHLARAIHD	15600	ROSEMARKIE	AD		40 km SW Inverness	5	
163		UPPER FOYERS	15600	ROSEMARKIE	AD		Upper Foyers	42	
165		U.STRTHNAIRN A	15600	ROSEMARKIE	AD		20 km S Inverness	25	
470		CULLODEN	15600	ROSEMARKIE	T		10 km E Inverness	25	Caravan site
8		GARVE	15601	AUCHMORE WOOD	AD		30 km NW Inverness	67	
289		GLASCARNOCH	15601	AUCHMORE WOOD	T		40 km NW Inverness	12	
302		INVERGARRY	15602	FORT AUGUSTUS	T		35 km NE Fort William	85	
331		TORVEAN	15610	INVERNESS	AD		2 km SW Inverness		Caravan park
<b>GRAMPIAN</b>		<b>Active Deflectors: 52</b>		<b>Total households:</b>		<b>2725</b>			
<b>Self Helps: 83</b>		<b>Transposers: 31</b>							

## Granada

Self Help Number	Station	Parent Station	Type	Location	Target Population (households) + other
322	DOLPHINHOLME	10300 WINTER HILL	AD	8 km SE Lancaster	10
364	TARNBROOK	10300 WINTER HILL	AD	12 km SE Lancaster	6
110	BARLEY	10300 WINTER HILL	AD	8 km N Burnley	40
369	WARRINTON	10300 WINTER HILL	T	0.5 km NW town centre	84
424	CLEVELEYS	10300 WINTER HILL	T	6 km N Blackpool	'a number of houses'
444	WARRINGTON	10300 WINTER HILL	T	2km NW town centre	80
446	MANCHESTER OT	10300 WINTER HILL	T	Old Trafford	'group of houses'
420	EWOOD PARK	10300 WINTER HILL	T	2 km S Blackburn	200
384	LIVERPOOL ANFIELD	10300 WINTER HILL	T	3 km NE of Liverpool City Centre	500
132	ABBEYSTEAD	10335 LANCASTER	AD	10 km SE Lancaster	30 School
319	BLAWITH	10344 MILLOM PARK	AD	15 km SW Windermere	40
419	DUDDON BRIDGE	10344 MILLOM PARK	T	19 km N Barrow-in-Furness	12
<b>GRANADA</b>					
<b>Self Helps: 12</b>		<b>Active Deflectors: 5</b>		<b>Total households: 1002</b>	
		<b>Transposers: 7</b>			

## HTV Wales

Self Help Number	Station	Parent Station	Type	Location	Target Population (households) + other
72	ABERGWESYN	10600 WENVOE	AD	7 km N Llanwrtyd Wells	20
410	YSTRADFELLTE	10600 WENVOE	AD	30 km NE Port Talbot	20
464	PENTREBACH	10600 WENVOE	T	3 km S Merthyr Tydfil	100
485	BARRY	10600 WENVOE	T	10 km SW city centre	300
497	CELTIC MANOR	10600 WENVOE	T	5 km E Newport	80
504	NEW INN C/P	10601 KILVEY HILL	T	8 km NE Tenby	1 100 caravans
371	ABERGORLECH	11900 CARMEL	AD	Dyfed	5
496	CWMERE	11900 CARMEL	AD	11 km NE Aberystwyth	10
170	HUNDREDHOUSE	11904 LLANDRINDOD	T	Cregrina, 8-11 km SE Llandrindod Wells	80
190	DERNOL VALLEY	11908 RHAYADER	AD	35 km E Aberystwyth	10
60	ABERGYNOLWYN	12900 PRESELY	AD	Gwynedd	84
8060	CAERBERLLAN	12900 PRESELY	AD		
161	RHYD-YR-ONNEN	12900 PRESELY	AD	20 km N Aberystwyth	20 caravan site
297	DREFELIN	12900 PRESELY	AD	20 km NNW Carmarthen	36
513	CWMTYDU A/D	12900 PRESELY	AD	17 km NNE Newcastle Emlyn	10 50 caravans
417	POPPIT SANDS	12900 PRESELY	AD	39 km NE Carmarthen	Caravan Park
311	ABERARAD	12903 LLANDYFRIOG	T	1 km E Newcastle Emlyn	75
347	RHYDMAIN	12911 DOLGELLAU	T	10 km NW Dolgellau	15
421	BRYNRODYN	13517 DOLYBONT	AD	7 km N Aberystwyth	1 200 caravans
401	GLASPWLL	13533 CORRIS	AD	21 km NE Aberystwyth	7
346	GWYDDELWERN	14500 MOEL Y PARC	AD	17 km E Llangollen	62
317	LLANDEGLA	14500 MOEL Y PARC	T	12 km E Wrexham	33
500	PENTRE-LLYN-CYMMER	14500 MOEL Y PARC	T	18 km E Betws-y-Coed	15
52	PANDY	14507 GLYN CEIRIOG	AD	9 km SW Wrexham	20
185	LLANFIHANGEL-GLYN-MYFYR	14511 CERRIG Y DRUDION	AD	31 km NW Llangollen	28
<b>HTV WALES</b>					
<b>Self Helps: 25</b>		<b>Active Deflectors: 16</b>		<b>Total households: 1032</b>	
		<b>Transposers: 9</b>			

## HTV West

Self Help Number	Station	Parent Station		Type	Location	Target Population (households) + other
61	LUCCOMBE	11000	MENDIP	AD	6 km w Minehead	38
337	CHEDDAR	11000	MENDIP	T	15 km E Weston-super-Mare	1674
335	CLAVERTON	11002	BATH	AD	4.5 km E Bath	40
<b>HTV WEST</b>		<b>Active Deflectors: 2</b>				
<b>Self Helps: 3</b>		<b>Transposers: 1</b>		<b>Total households:</b>		<b>1752</b>

## London

Self Help Number	Station	Parent Station		Type	Location	Target Population (households) + other
378	WHITE CITY	10100	CRYSTAL PALACE	T	9 km W central London	80
438	DEPTFORD	10100	CRYSTAL PALACE	T	south-east London	100
474	GREENFORD	10100	CRYSTAL PALACE	T	12 km N Heathrow Airport	203
517	CHARLTON ATHLETIC	10100	CRYSTAL PALACE & CROYDON	T	Redeveloped north stand Charlton Athletic Football Club	130
502	HENDON	10100	CRYSTAL PALACE	T	Graham Park estate	50
<b>LONDON</b>		<b>Active Deflectors: 0</b>				
<b>Self Helps: 5</b>		<b>Transposers: 5</b>		<b>Total households:</b>		<b>563</b>

## Meridian

Self Help Number	Station	Parent Station		Type	Location	Target Population (households) + other
448	PORTSMOUTH DOCKS	10800	ROWRIDGE	T	2 km N city centre	50 Estimate. group of houses'
<b>MERIDIAN</b>		<b>Active Deflectors: 0</b>				
<b>Self Helps: 1</b>		<b>Transposers: 1</b>		<b>Total households:</b>		<b>50</b>

## Scottish

Self Help Number	Station	Parent Station		Type	Location	Target Population (households) + other
29	GLENDARUEL	10500	BLACK HILL	AD		40 hotel
8029	GLENDARUEL B	SH29	GLENDARUEL	AD		12
434	BLYTH BRIDGE	10500	BLACK HILL	AD	30 km SW Edinburgh	50
8181	BENMORE B	10500	BLACK HILL	AD	50 m WNW Glasgow	7
94	ARDTORNISH A	10500	BLACK HILL	T	22 km NW Oban	15
36	BALQUHIDDER	10500	BLACK HILL	T	12 km NW Callander	42
484	BLAIR DRUMMOND	10500	BLACK HILL	T		5 caravan park
4	CAIRNDOW	10502	SOUTH KNAPDALE	AD	10 km E Inveraray	42
257	LOCH VENACHAR	10507	CALLANDER	AD	4 km W Callander	14
100	CALLANDER PARK	10507	CALLANDER	AD	22 km NW Stirling	1 100 caravans
115	COLONSAY	10510	TOROSAY	AD	Island of Colonsay	59
269	LOCH SUNART	10510	TOROSAY	AD		
272	GLENUIG	10510	TOROSAY	AD	43 km W Fort William	9
298	BARGUILLEAN	10510	TOROSAY	AD	12 km E Oban	3
303	STRONTIAN	10510	TOROSAY	AD	32 km WSW Fort William	14
309	LOCH CAOLISPORT	10510	TOROSAY	AD	20 km SW Lochgilphead	85

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8309		LOCH CAOLISPORT A	SH309	LOCH CAOLISPORT	AD		20 km SW Lochgilphead		
7309		LOCH CAOLISPORT B	SH309	LOCH CAOLISPORT	AD		20 km SW Lochgilphead		
6309		LOCH CAOLISPORT C	SH309	LOCH CAOLISPORT	AD		20 km SW Lochgilphead		
5309		LOCH CAOLISPORT D	SH309	LOCH CAOLISPORT	AD		20 km SW Lochgilphead		
399		PORTUAIRK	10510	TOROSAY	AD		68 km W Fort William	12	
8094		ARDTORNISH B	10510	TOROSAY	AD		68 km W Fort William		
86		BR OF AWE	10510	TOROSAY	T		20 km E Oban	21	
217		GLEN LOY	10512	COW HILL	AD		7 km N Fort William	4	hotel
227		S.LOCHEILSIDE	10512	COW HILL	AD		Loch Eil, 5-15 km NW Fort William	25	
279		GAIRLOCHY	10512	COW HILL	AD		12 km NE Fort William	6	
450		CONAGLEN	10512	COW HILL	AD		9 km SW Fort William	8	
5		DERVAIG	10517	GLENGORM	AD		Isle of Mull	42	
176		ARISAIG HOUSE	10517	GLENGORM	AD		42 km W Fort William	13	
183		LOCHAILORT	10517	GLENGORM	AD		35 km W Fort William	21	
368		STRATHAIRD	10517	GLENGORM	AD		Isle of Skye	15	
382		TORRIN	10517	GLENGORM	T		25 km SE Portree	19	
8308		ISLE ORNSAY B	10519	MALLAIG	AD		Island of Skye	50	
308		ISLE ORNSAY A	10519	MALLAIG	T		Island of Skye		
7308		ISLE ORNSAY C	10519	MALLAIG	T		Island of Skye		
6101		GLENELG D	SH308C	ISLE ORNSAY C	AD		10 km SE Kyle of Lochalsh		
122		CLACHAIG INN	10524	ONICH	AD		Glencoe	10	(mountaineering centre)
71		GLENBRANTER	10525	STRACHUR	T		14 km NW Garelochhead	28	
164		GLENSPEAN A	10526	SPEAN BRIDGE	AD		25 km ENE Fort William	25	
8164		GLENSPEAN B	10526	SPEAN BRIDGE	AD		25 km ENE Fort William		
221		INVERINAN	10534	DALMALLY	AD		20 km SE Oban	4	
493		SALEN (AROS)	10542	FIUNARY	AD		Island of Mull	11	
356		GLEN COVA A	12300	ANGUS	AD		40 km Nr of Dundee		
		GLEN COVA B	12300	ANGUS	AD				
193		AUGHENCHEYNE	13716	THORNHILL	AD				
246		DULLATUR	14700	CRAIGKELLY	T		20 km NE Glasgow	40	
380		EDINBURGH	14700	CRAIGKELLY	T		Sighthill area	167	
144		INVERNAID	15200	DARVEL	AD		35 km N Dumbarton	8	Hotel caravan park
518		CRAIGIE GARDENS	15200	DARVEL	T			1	90 caravans
31		LOCH STRIVEN	15203	WEST KILBRIDE	AD		Loch Striven		
370		BURNTON	15204	LETHANHILL	T		Nr. Dalmellington	80	
240		KILCHIARAN	15208	PORT ELLEN	AD		Islay, 10 km W Bowmore	3	
30		ORMIDALE	15216	TIGHNABRUAICH	AD		North of Strathclyde region	25	
181		BENMORE A	15226	ARDNADAM	AD		50 km WNW Glasgow	30	
<b>SCOTTISH</b>				<b>Active Deflectors: 42</b>					
<b>Self Helps: 54</b>				<b>Transposers: 12</b>		<b>Total households:</b>		<b>1068</b>	

## Tyne Tees

Self Help Number	Station	Parent Station	Type	Location	Target Population (households) + other
233	LOW HABER	10900 PONTOP PIKE	AD	West Allen Dale, 18 km SW Hexham	caravan site
449	NORTH HARTLEPOOL	10900 PONTOP PIKE	T		84
212	KIELDOR DAM	10900 PONTOP PIKE	AD		6 Holiday complex
480	FAR TOWN (ALSTON)	10908 ALSTON	AD		(Barhaugh Hall)
158	LANGTHWAITE	11600 BILSDALE	AD		30
343	HAWSKER BOTTOM	11600 BILSDALE	AD		150 caravans
179	GARSDALE(PIN FOLD)	11600 BILSDALE	T		63 (coverage together with SH34)
<b>TYNE TEES</b>		<b>Active Deflectors: 5</b>		<b>Total households: 183</b>	
<b>Self Helps: 7</b>		<b>Transposers: 2</b>			

## Ulster

Self Help Number	Station	Parent Station	Type	Location	Target Population (households) + other
427	CHAPEL FIELDS	10700 DIVIS	T	Central Belfast	61
441	ELLIOTTS HILL	13000 LIMAVADY	T	13 km SE Ballymena, Co. Antrim	90 (according to B9 Energy)
<b>ULSTER</b>		<b>Active Deflectors: 0</b>		<b>Total households: 151</b>	
<b>Self Helps: 2</b>		<b>Transposers: 2</b>			

## Westcountry

Self Help Number	Station	Parent Station	Type	Location	Target Population (households) + other
461	BARLEYCOMBE	13100 CARADON HILL	AD	25 km E Plymouth	3
301	PARRACOMBE	13100 CARADON HILL	T	17 km NE Barnstaple	80
425	LEE	13112 ILFRACOMBE	T	4 km W Ilfracombe	65
397	FRESHWATER C/P	13200 STOCKLAND HILL	AD	2 km SE Bridport, Dorset	250 (caravans)
418	BICKLEIGH	13200 STOCKLAND HILL	T	15 km N Exeter	25
422	LADRAM BAY	13200 STOCKLAND HILL	T	15 km SE Exeter	400 (caravans)
111	LANNACOMBE	13600 BEACON HILL	AD	25 km SW Torbay	4
351	NTH MOLTON	13800 HUNTSBAY CROSS	T	18 km E Barnstaple	30
407	COVERACK	14100 REDRUTH	T	15 km S Falmouth	70
<b>WESTCOUNTRY</b>		<b>Active Deflectors: 3</b>		<b>Total households: 927</b>	
<b>Self Helps: 9</b>		<b>Transposers: 6</b>			

## Yorkshire

Self Help Number	Station	Parent Station		Type	Location	Target Population (households) + other	
8070	DERWENT B	10400	EMLEY MOOR	AD		74	
7070	DERWENT C	SH70	DERWENT A	AD			
321	DUNFORD BRIDGE	10400	EMLEY MOOR	AD	14 km S Huddersfield	15	
430	HMP LEEDS	10400	EMLEY MOOR	T		30	
457	THIXENDALE	10400	EMLEY MOOR	T	25 km ENE York	40	
278	STRIDWOOD	10427	ADDINGHAM	AD	10 km NW Ilkley	10	caravan site
168	HALTON GILL	10469	KETTLEWELL	AD	60 km NW Leeds	10	
<b>YORKSHIRE</b>		<b>Active Deflectors: 5</b>		<b>Total households:</b>		<b>179</b>	
<b>Self Helps: 7</b>		<b>Transposers: 2</b>					

Notes: 'T' – transposer; 'AD' – active deflector

A7.2 The following self help relays for Channel 5 are located at broadcaster site that will be converted to digital at DSO, and the relays will therefore no longer be needed.

Station Number	Station	NGR	Type	PoI	Channel	ERP kW
* 10328	MANCHESTER-HULME C5	SJ829966	T	V	48	0.01
* 18293	LLANDYFRIOG C5	SN348412	T	V	35	0.11