Annex K: Outdoor aerials: contextual quantitative insights

These quantitative findings are taken from the *Freeview HD and TV Aerials (2013)* study and provide context for participants' responses to the aerial change scenario. This annex focuses on outdoor aerials, covering quantitative findings relating to past and future aerial replacements. In terms of past replacements, the quantitative study explored whether respondents had replaced their outdoor aerial in the last 3 years. The material on future replacements explores the likelihood to replace outdoor aerials in response to hypothetical changes to the way DTT is delivered.

1.1 Past outdoor aerial replacements

As part of the main research amongst DTT households only, respondents were asked if they had replaced their outdoor aerial within the last 3 years. 74% had not done this, with 18% of DTT households saying they had replaced their external aerial within the past 3 years.

7% said they have no influence over this as it is a shared aerial. This is primarily driven by 16-34s (significantly higher at 14% than 5% among 35+) with an obvious link to life stage (e.g. living with parents, higher propensity to rent). This group was also markedly higher on DEs (11%).

1.2 Future outdoor aerial replacements

Another research objective was to better understand whether DTT viewers would be prepared to incur costs to change their rooftop TV aerial or switch to a different TV platform in case of future changes to DTT transmissions causing loss of access to some or all channels. It is important to note that the following results reflect claimed consumer behaviour and these might differ from any actual actions taken in the future.

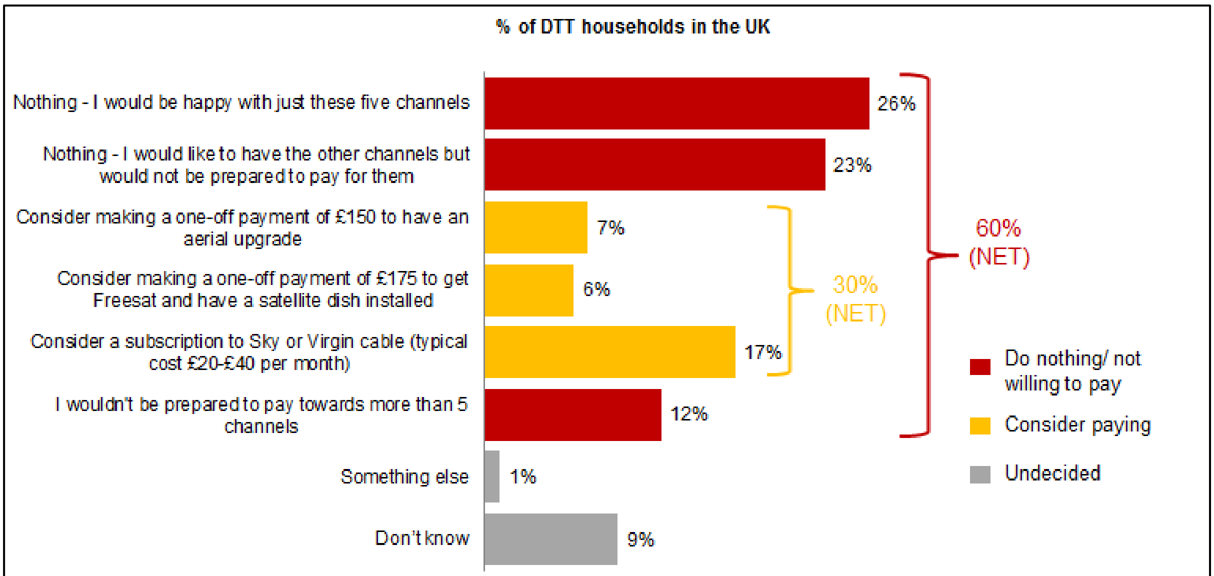
- **Scenario in which DTT viewers lose access to all but the main 5 channels**

As discussed in Ofcom's UHF Strategy statement of November 2012[1] , long term potential changes to the frequencies used for DTT transmissions could mean that a small proportion of households would need to change their TV aerial in order to maintain reception to a full DTT service.

We asked all DTT respondents what they would do if there was a change to the terrestrial TV transmission network and as a result they lost access to most of the Freeview channels, just retaining the main five channels.

60% of these respondents said that they would do nothing – 26% said they were happy with just those five channels whilst 23% said they would like to have the other channels but would not be prepared to pay for them, 12% just simply said they would not be prepared to pay towards more than 5 channels.

[1] Source: Ofcom's UHF Strategy statement of November 2012
http://stakeholders.ofcom.org.uk/binaries/consultations/uhf-strategy/statement/UHF_statement.pdf



Source: Kantar face-to-face Omnibus (12th – 17th June 2013)
Base: All DTT households in the UK (916)
Question: Q42. Imagine if there are changes to the terrestrial TV transmission network and as a result of this you would lose access to most of the Freeview channels and would be left with just the 5 main channels, that is BBC ONE, BBC TWO, ITV, Channel 4 and Five. There are a number of options available in order to regain access to the other channels, which one of these would you be most likely to do…

Figure 12: Likely response to losing all channels apart from the main five channels

30% of DTT respondents said they would be prepared to consider some form of payment to retain access to all channels: 17% would consider a subscription to Sky or Virgin at a typical cost of £20-£40 per month, 7% would consider an aerial upgrade costing £150 and 6% a one-off payment of £175 to access the channels via Freesat.

There remained a reluctance to consider paying for access to more than just the five channels by DTT-only households, in fact the DTT-only population was less inclined to pay for access to these channels than the households who had another TV platform in the home: 26% said they would consider paying for additional access, 63% said they would not be prepared to pay at all. This compares to 49% and 43% respectively amongst DTT consumers who have another TV platform in the home. Of these, the most popular option was a Sky / Virgin subscription (37% of DTT homes with another platform).

Likely response to losing access to all but the 5 'main channels' (by TV platform)

Likely response	DTT only (770)	DTT + another TV platform (146)
Nothing – I would be happy with just these 5 channels	28%	17%
Nothing – I would like to have the other channels but would not be prepared to pay for them	23%	18%
Consider making a one-off payment of £150 to have an aerial upgrade	7%	3%
Consider making a one-off payment of £175 to get Freesat and have a satellite dish installed	6%	9%
Consider a subscription to Sky or Virgin cable (typical cost £20-£40 per month)	13%	37%
I wouldn't be prepared to pay towards more than 5 channels	12%	9%
Something else	1%	1%
Don't know	10%	6%

Households who have another TV platform other than DTT in the home have arguably already proved themselves willing to pay extra for TV services (they probably do so to access the other TV service) and are more open to doing so in order to access TV channels on the remaining TV sets in the home.

Likely response if lost access to all but the 5 'main channels' (by age band)

Likely response	16-24 (118)	25-34 (103)	35-54 (277)	55+ (418)
Nothing – I would be happy with just these 5 channels	16%	23%	22%	33%
Nothing – I would like to have the other channels but would not be prepared to pay for them	17%	23%	21%	25%
Consider making a one-off payment of £150 to have an aerial upgrade	5%	5%	7%	7%
Consider making a one-off payment of £175 to get Freesat and have a satellite dish installed	11%	7%	7%	4%
Consider a subscription to Sky or Virgin cable (typical cost £20-£40 per month)	27%	31%	22%	6%
I wouldn't be prepared to pay towards more than 5 channels	11%	2%	12%	14%
Something else	-	-	1%	2%
Don't know	12%	9%	7%	10%

There was a greater propensity for people aged over 55 to say they would do nothing in this situation: 71% in total said they would do nothing (compared to 44% of 16-24 year olds, 48% of 25-34 year olds and 56% of 35-54 year olds), 33% would do nothing as they would be happy with just the five channels. There was no difference by social grade.

➢ Scenario in which DTT viewers lose access to all channels

DTT households were also asked what they would do if a future change to DTT transmissions resulted in them losing access to all of the Freeview channels as shown in the following figure.

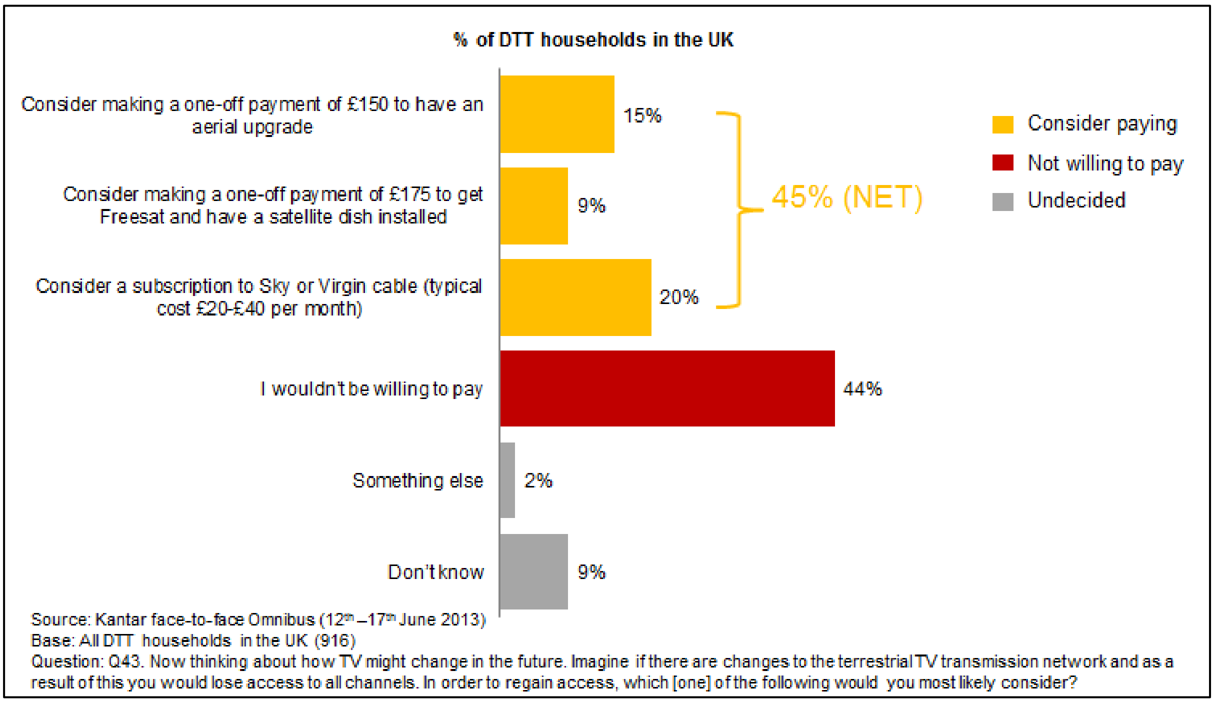


Figure 13: Likely response to losing all channels

In the event that they lost all the channels, more were prepared to pay: 45% of DTT respondents said they would consider paying extra as a result, compared to the 30% in the earlier example where they would still retain the five main channels without any additional payment. 15% said they would consider the aerial upgrade, 9% would consider a one-off payment for Freesat and 20% would consider a Sky/Virgin subscription. It is the aerial upgrade option that shows the greatest uptake compared to the scenario where they could still access the main five channels.

Likely response if lost access to all channels (by TV platform)

Likely response	DTT only (770)	DTT + another TV platform (146)
Consider making a one-off payment of £150 to have an aerial upgrade	17%	5%
Consider making a one-off payment of £175 to get Freesat and have a satellite dish installed	9%	13%
Consider a subscription to Sky or Virgin cable (typical cost £20-£40 per month)	16%	43%
I wouldn't be willing to pay	46%	29%
Something else	2%	4%
Don't know	10%	6%

Looking at the same data for DTT only households compared to those who have another TV platform in addition to DTT, the same overall pattern is evident as we saw for the scenario whereby they lost access to all but five channels. Those with DTT in addition to another platform were more open to a subscription to Sky /Virgin, potentially being able to upgrade their existing subscription to a multi-room option.

Faced with losing all channels, DTT only homes were more open to an option involving additional payment than when they had been when faced with losing all but the five main channels: 17% would consider an aerial upgrade if they would not receive any channels compared to 7% who would do so if they still received the main five channels. The corresponding figures for the one-off payment for Freesat were 9% and 6%, albeit the difference is only statistically significant at the 95% level rather than the 99% level.

The younger DTT households were more willing to consider a paying option with 55% of 16-24 year olds and 55% of 25-34 year olds saying they would consider a payment (37% and 39% respectively said they would consider a subscription to Sky or Virgin). The older age groups were less willing to pay (51% of those aged over 55 said they would not pay) and those who would pay were more likely to consider an aerial upgrade (17% of DTT respondents aged over 55). It is important to remember that the DTT population is skewed towards this older age group.

Likely response if lost access to all channels (by age band)

Likely response	16-24 (118)	25-34 (103)	35-54 (277)	55+ (418)
Consider making a one-off payment of £150 to have an aerial upgrade	7%	9%	18%	17%
Consider making a one-off payment of £175 to get Freesat and have a satellite dish installed	11%	7%	7%	11%
Consider a subscription to Sky or Virgin cable (typical cost £20-£40 per month)	37%	39%	25%	6%
I wouldn't be willing to pay	33%	35%	42%	51%
Something else	3%	2%	2%	3%
Don't know	8%	7%	6%	12%

The ABC1 DTT households were more willing to consider a payment (51%) than C2DE households (39%) although there were no significant differences in the pay option they would consider (ABC1s were slightly higher on an aerial upgrade at 18% compared to 12% for C2DEs).

Annex L: Indoor aerials: contextual quantitative insights

These quantitative findings are taken from the *Freeview HD and TV Aerials (2013)* study and provide context for participants' responses to the aerial change scenario. This annex focuses on indoor aerials.

DTT is designed to provide coverage for viewers with rooftop aerials, and consumers are generally advised to use those. However, in some areas where the DTT signal is particularly strong it is possible to receive a signal using an indoor aerial, either a small portable one that may sit on top of the television or living room furniture (set-top aerials), or larger aerials inside a loft (loft aerials). One of the objectives of the quantitative study in spring 2013 was thus to understand how widespread the use of indoor or loft aerials is, and whether they tend to be connected to the main set, second sets, or are the sole source of television.

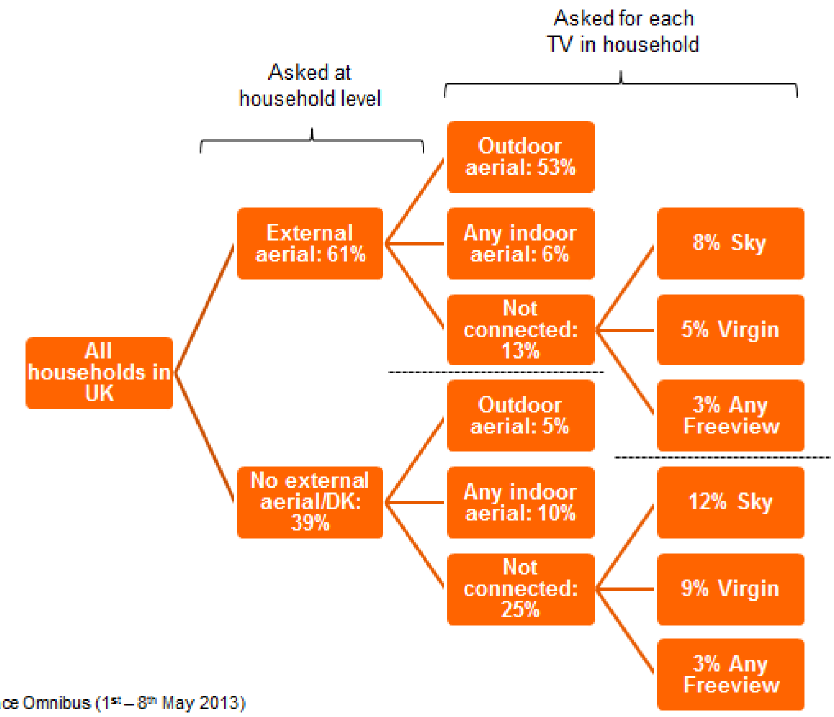
Note: these findings are based on the total TV-owning population rather than just the DTT population.

1.3 The type of aerials used by TV viewing households in the UK

As part of the screener / introductory warm-up questions on the topic of TV, households were asked if they have any external aerials. At this point in the survey, 61% of all UK TV households said they had an external aerial. Note that for this section of the report we are not just reporting on DTT households as all respondents were asked these questions.

Later on in the questionnaire, respondents were asked about the type of aerial they have for <u>each</u> TV set in the household.

The two types of questions elicit slightly different results, potentially due to some initial confusion but also because asking the same question for each TV set does require further thought.



Source: Kantar face-to-face Omnibus (1st – 8th May 2013)
Base: : All TV households in the UK (1,674), cumulative percentages
Question: Aer1. Do you have any external aerials?/Q22. To what type of aerial is the TV set in this particular room connected?

Figure 14: Type of TV aerials in the household, asked both at a household level and for each TV set

61% of households in UK said that they had an external aerial. Of these, 86% had TVs connected to that external aerial: this equates to 53% of all UK households as illustrated in the figure above. This is higher than the reported proportion of DTT households (39% of UK households), indicating that there are households that have an external aerial, but do not need to use it for the TV service(s) (satellite TV or cable through Virgin Media) they currently have.

The above figure also shows that in 6% of households, they have an external aerial but at least one TV is actually connected to an indoor aerial and in 13% of homes, there were TV sets that were not connected to any aerial despite having an external aerial at the home. The majority of these were relying on a feed from Sky or Virgin Media – the TV just was not actually connected to the aerial that they had – but there was also a small fraction of homes with TV sets (2% of homes without an aerial, which equates to 3% of all UK homes) that were claimed to receive Freeview without any connection to an aerial.

5% of households said they did not have an external aerial but later on in the questionnaire said that they said they had TV sets attached to an outdoor aerial and so were either just misunderstanding the initial questionnaire or when forced to reconsider how their television received its signal, they remembered it was in fact attached to an external aerial.

The analysis does suggest some confusion within a small group, however: 6% of the population said they had Freeview on a TV that was not connected to any aerial (3% in households where they had earlier claimed there was an external aerial and 3% in households where they said there was no such aerial. For the former group, potentially the TV was indeed connected to their external aerial but for the latter group it is unclear as to how they would be receiving their Freeview feed as it would not be possible without an aerial attached.

Younger, 16-34 households were significantly less likely (47%) to have an external aerial than the overall average. 55+ households were significantly more likely to have external aerials (69%), as shown in the following table:

% of TV households with external aerial by age band

AGE	% of UK TV households that have an external aerial
16-34 (389)	47%
35-54 (610)	61%
55+ (633)	69%

This is potentially a function of the type of housing that these population groups live in – arguably, younger households are more likely to live in flats whereas older households are more likely to be in houses with external aerials.

There were also some significant differences by geography:

% of TV households with external aerial by region

GOVERNMENT OFFICE REGION	% of UK TV households that have an external aerial
North East (94)	62%
North West (170)	77%
Yorkshire and the Humber (137)	59%
East Midlands (141)	77%
West Midlands (160)	72%
East of England (130)	44%
London (183)	47%
South East (243)	63%
South West (150)	65%
Wales (70)	68%
Scotland (136)	34%
Northern Ireland (57)	50%

This shows that there was a significantly higher use of external aerials in the North West (77%), East Midlands (77%) and West Midlands (72%). On the other hand, households in the East of England (44%), London (47%) and Scotland (34%) had a significantly lower propensity to have rooftop aerials than the national average.

Looking at external aerials ownership/access by those who live in urban vs. rural areas, there are no significant differences (60% and 64% respectively).

The differences by geography can be explained to some extent by the types of housing prevalent in those areas. Looking at accommodation type data in the 2011 census for England, Wales and Northern Ireland / 2001 census data for Scotland, there is a link to a significantly higher incidence of people living in detached, semi-detached or terraced housing in the North West and the Midlands (compared to the national average). On the other hand, residents living in London or Scotland were considerably more likely to live in a type of accommodation that would not necessarily allow them to have access to an external aerial (purpose-built block of flats or tenements, parts of a converted or shared house, flats in commercial buildings, caravans/temporary structure or shared accommodation):

Accommodation type by region

% of people living in type of accommodation (census 2011)	% of people living in detached, semi-detached or terraced housing	% of people living in purpose-built block of flats or tenements, parts of a converted or shared houses, flats in commercial buildings, caravans/ temporary structure or shared
National average (61,835,457)	83%	17%
North West (6,927,820)	90%	10%
East Midlands (4,442,192)	92%	8%
West Midlands (5,509,535)	89%	11%
East of England (5,748,605)	88%	12%
London (8,073,700)	57%	43%
Scotland (4,976,005) (census 2001 data)	71%	29%

In the East of England, the types of accommodation that facilitate having a rooftop aerial (detached, semi-detached or terraced houses) are higher than the national average, indicating other underlying reasons for lower claimed share of outdoor aerials.

As mentioned previously, the later question asking people to answer for a specific TV set requires them to consider that bit harder how that TV received its feed. This resulted in a number of people (5% of all UK households) who originally said that their home did not have an external aerial realising that they did indeed have one and that at least one TV in the home was connected to it.

Overall, 16% of UK households said they were connected to an indoor aerial. Grossing up this proportion of indoor aerial homes to a total population figure of UK households (Source: *BARB Establishment survey Q4 2012*), this figure equates to 4.4 million households in the UK.

1.4 Types of indoor aerials

16% of the UK population said they use an indoor aerial for at least one TV set.

There are several indoor aerials on the market – they can be broadly categorised as follows:

- Small indoor aerials that are comparatively non-intrusive when put up close to a TV set (set-top aerial)
- Larger portable aerials that are designed to receive the DTT signal through the inside of a roof, thus usually positioned in a loft (loft aerial) – these are largely rooftop aerials that have been put in lofts.

➢ Set-top aerials

The figure below illustrates how the 8% of TV households in the UK that have a set-top aerial connected to at least one TV set in the household receive their primary TV service on that TV set:

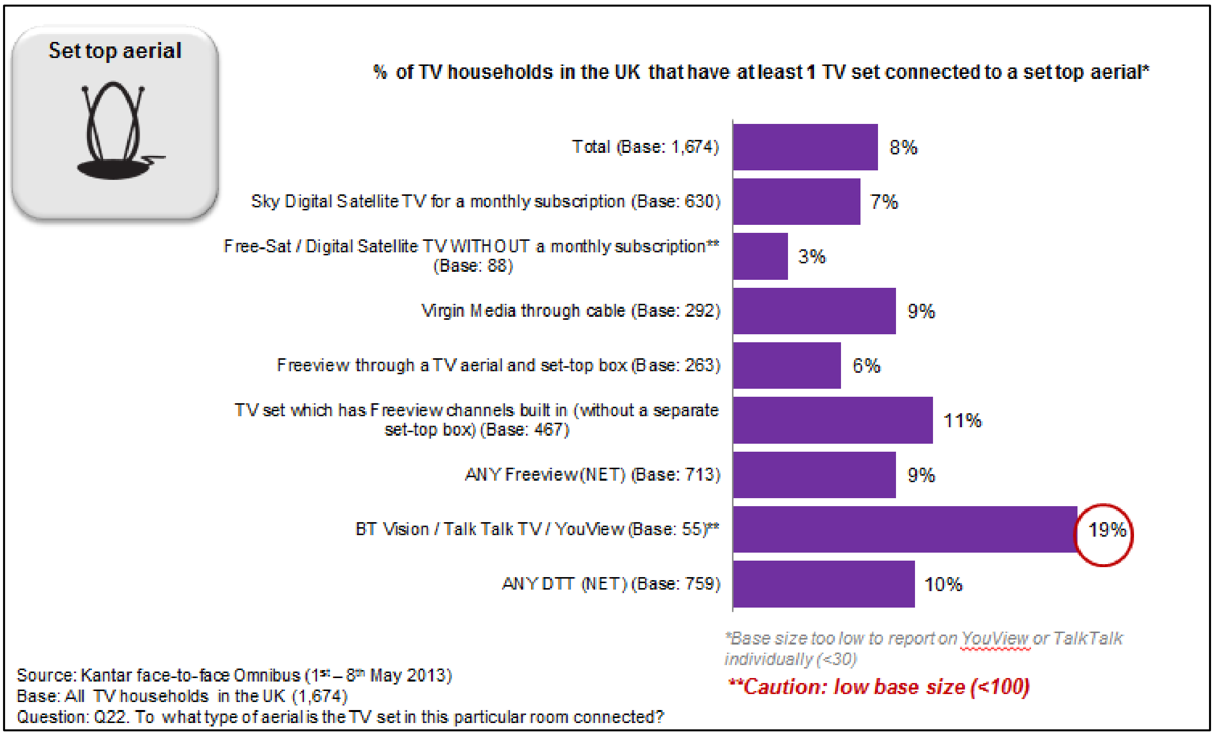


Figure 15: Set-top aerials in the household

Freeview homes did not have a significantly higher propensity to use a set-top aerial for their TV services than the overall average (9% compared to the average of 8%). In light of the size of the Freeview population within this, this is also true for DTT households (10% have a set-top box aerial) but BT Vision, TalkTalk or YouView customers were significantly more likely (19%) to have a small portable aerial connected to a TV set than all UKTV households. This is based on a low number of households (55) but the difference is still statistically significant.

Non-DTT households do not need to have an aerial connection for receiving their TV services as their signal is provided by other means. A sizeable proportion of non-DTT homes (7% of homes with Sky on a monthy subscription, 9% of those with Virgin Media via cable) said they had at least one TV set connected to a set-top aerial. This could be suggestive of consumer confusion surrounding set-top aerials, bearing in mind that Sky/Virgin Media homes might use set-top aerials as back-up.

Secondary TV sets in household (12% of homes with a secondary TV set) were significantly more likely to get their TV service through a set-top aerial than main TV sets (2%).

Among those households who say they had an indoor aerial, there were no significant differences by any key demographic subsets or geography.

92% of those who use a set-top aerial said they solely rely on this aerial for receiving their TV service on a TV set in the household.

- **Loft aerials**

8% of TV households in the UK said they used a loft aerial; this is on a par with those who had a set-top aerial, as shown in the figure below:

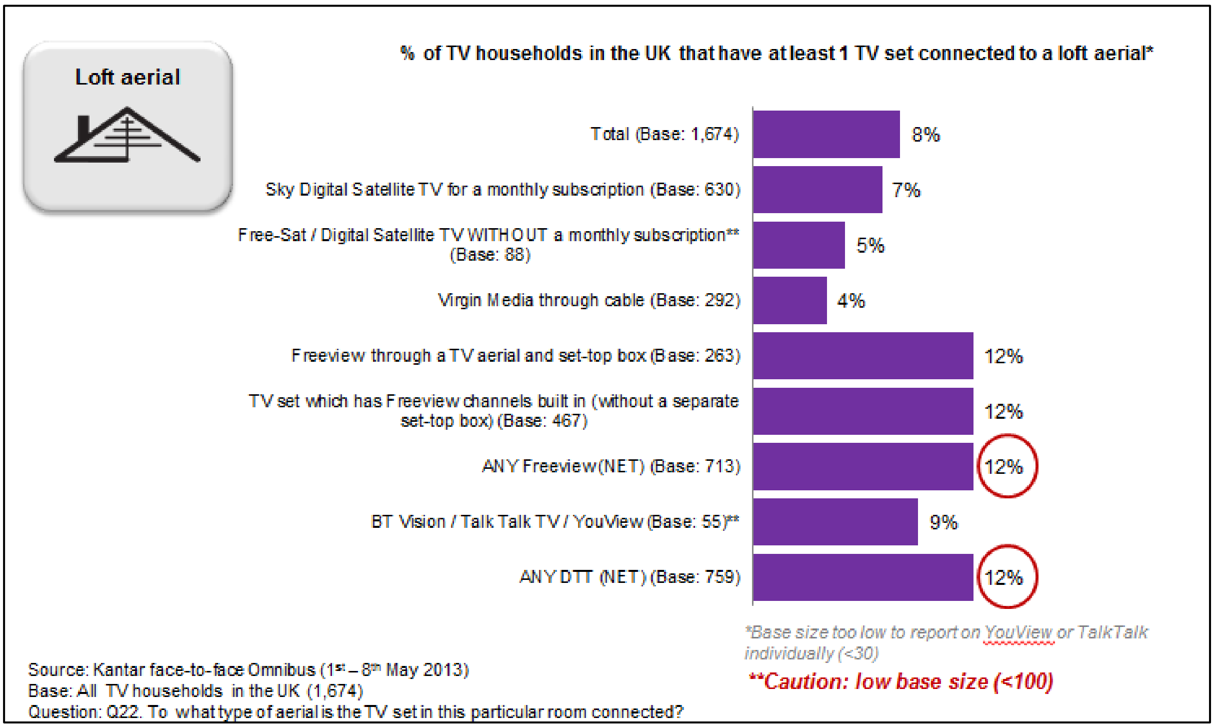


Figure 16: Loft aerials in the household

Compared to the overall average of all TV households in the UK, incidence of loft aerials is significantly higher among DTT households (12%). This is primarily driven by Freeview households (12%) as BT Vision, TalkTalk or YouView homes were in line with the average for UK TV households (9%).

Unlike set-top aerials, loft aerials are as likely to be connected to a main TV set (7%) as to a secondary TV set (9% of homes with a secondary TV set). This is possibly an effect of loft aerials being more similar in nature to outdoor aerials (more involved installation, possibly requiring an engineer; ability to service more than one household, e.g. in a block of flats, or multiple TV sets within the same household) than small portable aerials (just need to be connected to a TV set and a power socket, but cannot be linked to more than one TV set).

This is supported by a significantly higher proportion of Scottish households (16%) saying they receive their TV service from a loft aerial than the overall average (8%), linking in with the significantly higher incidence of Scottish audiences (29%) living in purpose-built block of flats or tenements, parts of a converted or shared house, flats in commercial buildings, caravans/temporary structure or shared.

91% said they solely rely on a loft aerial for their TV service on a TV set in the household is. This is on a par with those who said so in households with a set-top aerial (92%).

1.5 DTT and set-top and loft aerials

DTT reception through indoor aerials is generally expedited by a strong signal and low background noise in a given area. This is true for both set-top and loft aerials.

Of the total UK TV household universe, 36% receive their TV services through Freeview and have no other TV platform in the household.

When asked about the type of aerial they connect TV sets to in their household, 3% have Freeview only and use a set-top aerial, 5% have Freeview and their TV linked to a loft aerial.

There is a small proportion of UK households who have Freeview as the sole form of TV in the home and use either a set-top aerial or a loft aerial for at least one TV but do have the option to use an external aerial –

- 3% of UK households are solely reliant on Freeview and have an external aerial but use a set-top aerial
- and, 5% of UK households are solely reliant on Freeview and have an external aerial but use a loft aerial

Excluding these along with households who probably never plan to upgrade to a rooftop aerial, leaves a proportion of 2% who have a set-top aerial connected to their Freeview TV and 4% relying on a loft aerial for their Freeview reception.

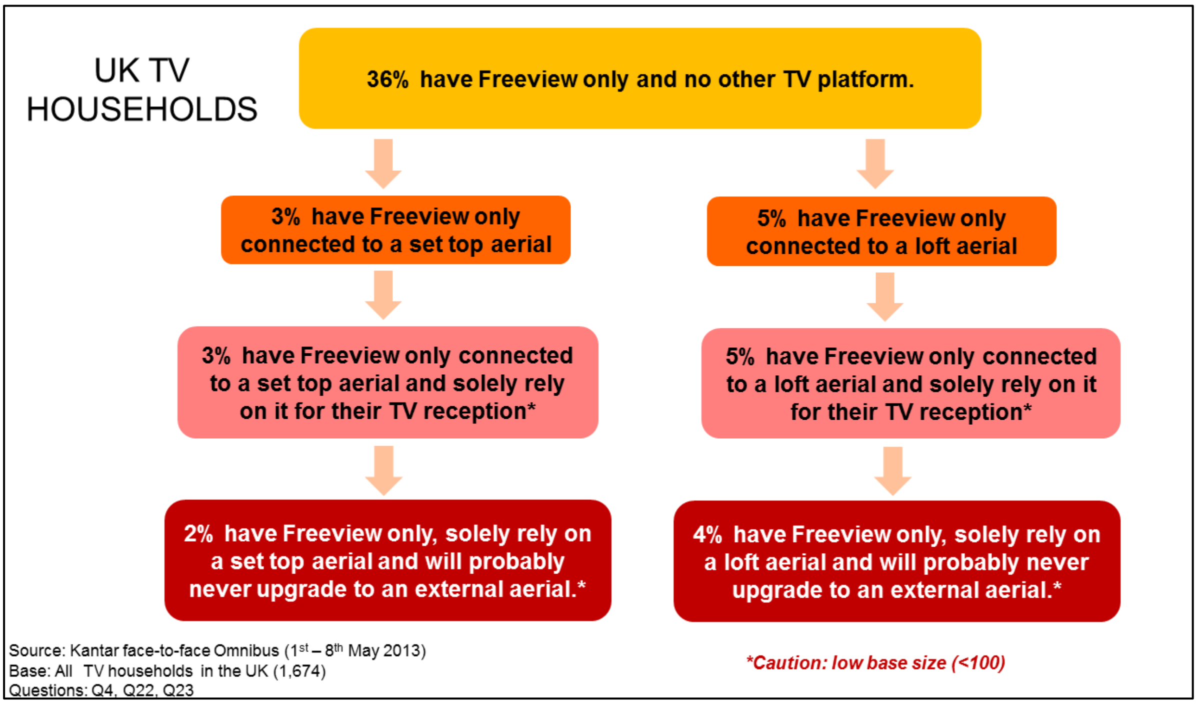


Figure 17: DTT and indoor aerials

To summarise, 2% of all UK TV households said they rely solely on Freeview through a set-top aerial for their TV reception with no intention to ever upgrade to an outdoor aerial, and

4% of all UK TV households said they rely solely on Freeview through a loft aerial for their TV reception with no intention to ever upgrade to an outdoor aerial

Getting a rooftop aerial is not always feasible for all Freeview customers (e.g. for residents in blocks of flats). However, looking at this group of the population (those with Freeview only, solely relying on an indoor aerial for a TV set and no plans to upgrade) by housing tenure shows that 65% do not need to seek permission from a landlord as they live in their own property:

Freeview households relying on indoor aerial by housing tenure

Housing tenure	% of Freeview households that solely rely on an indoor aerial and have no intention of upgrading to an outdoor aerial within the next years (90)
Being bought on a mortgage	23%
Owned outright by household	42%
Being bought on a mortgage/ Owned outright by household (NET)	65%
Rented from local authority	16%
Rented from private landlord	18%
Other	1%

Whilst restrictions on installing an outdoor aerial could still apply to some of these, the above breakdown is suggestive of other underlying reasons for not upgrading.

The profile of those with Freeview only that solely rely on an indoor aerial and will not upgrade to an external aerial shows that this group is significantly older and, as such, considerably more likely to live alone than the national average. That said, it is not less affluent, with a similar social grade profile to the overall UK population.

Profile of Freeview households relying on indoor aerial

	All UK households (2,163)	% of Freeview households that solely rely on an indoor aerial and have no intention of upgrading to an outdoor aerial within the next years (90)
55+	35%	52%
Only 1 adult in the household	26%	35%
ABC1	50%	54%
C2DE	50%	46%
Freeview on a secondary TV set (and no external aerial)	11%	36%

This indicates that there is more than one customer typology behind households who solely on Freeview through an indoor aerial for their TV reception with no intention to ever upgrade to an outdoor aerial:

- Older Freeview consumers that live on their own and face bigger challenges with upgrading their TV equipment

  Those who can afford a secondary TV set, but have chosen not have a rooftop aerial