**Robert Kenny**

# Critique of the 'Watch this space' CBA

**August 2026**

COMMUNICATIONS CHAMBERS

## Disclaimer

This is a paper funded by Everyone TV. The opinions offered herein are purely those of the author. It does not necessarily represent the views of other Communications Chambers members or of Everyone TV.

## *About the Author*

Rob Kenny is a founding member of Communications Chambers, a UK-based strategy and policy consultancy working in telecoms and media. He is the author of dozens of papers covering media, telecoms and technology policy issues.

He previously headed strategy and/or M&A for Level 3, Reach and Hongkong Telecom. He has served as a senior advisor to the Payment Systems Regulator. He has a degree in mathematics and management from Cambridge University.

# Contents


1 Executive summary ..... 2

2 Introduction ..... 5

3 Summary of the CBA ..... 6

4 Numbers needing support through a transition ..... 8

4.1 Number of households without IPTV capability 8

4.2 Treatment of satellite households 9

5 Discussion of monetised impacts ..... 10

5.1 Overstatement of broadband costs 10

5.2 Radio costs 13

5.3 Communications programme costs 14

5.4 Cost of IPTV devices 15

5.5 600 MHz clearance costs 16

5.6 MNO savings from spectrum 17

5.7 DTT network cost savings 18

5.8 Conclusion 19

6 Discussion of unmonetised impacts ..... 20

6.1 The CBA's unmonetised impacts 20

6.2 Other unmonetised impacts 23

6.3 Conclusion 26

7 Conclusion ..... 27

# 1 Executive summary

DCMS is considering whether a transition from DTT to IPTV should be made in 2034 or 2044 (Option 1 and 2 respectively). In this context it has published an initial cost-benefit analysis (CBA) comparing the two options. This found a modest advantage to Option 2 when considering only monetisable impacts, but also noted a number of unmonetised impacts. However, as we set out below, there are a number of essential adjustments to the CBA, and the net effect of these is that Option 1 becomes significantly preferred.

*Monetised impacts*

Some of the individual monetised impacts in DCMS' analysis are very large relative to the net impact. For instance, DCMS finds a £1.4bn advantage on broadband costs for Option 2, which compares to its calculated net benefit for Option 2 of just £305m. Unavoidably, DCMS' net figure is therefore highly sensitive to the assumptions underlying the individual items.

Our review suggests that DCMS' assumptions and approach need enhancement in a number of areas. In particular:

- DCMS appears to be using now-outdated 3 Reasons forecasts for the number of households without IPTV in 2034 (a key driver of transition support costs). The CBA is based on a figure of 1.51m households, but 3 Reasons now predicts 0.67m households. This will greatly reduce the costs of a 2034 transition, favouring Option 1
- Contrary to Green Book guidance, the CBA uses a higher discount rate for the value of spectrum to MNOs than for all other items. Using the Social Time Preference Rate for spectrum value (as DCMS has for all other items) will greatly increase the assessed benefit, enhancing Option 1 (which delivers this spectrum much earlier)
- DCMS uses retail costs for broadband and IPTV devices. However (per the Green Book), CBAs are better based on underlying costs that do not embed margin for suppliers. Correcting this will greatly reduce the costs of these items, to the benefit of Option 1. (Conversely, applying similar logic to DTT network costs will reduce these, to the benefit of Option 2)
- The CBA bases its estimate of the costs of a communications programme to support the IPTV transition on an historic

forecast of the cost of a similar programme for Digital Switchover. However actual figures for DSO (which are appreciably lower) are available. The CBA also appears to ignore the need for a communications programme for the DVB-T2 transition. Correcting for these issues will favour Option 1.

In summary:

| Impact | Net benefit to 2044 trans'n per DCMS | Relevant adjustments ['-' ⇒ lower benefit from 2044 trans'n] |
|---|---|---|
| Cost of BB for HH without | £1,400 | - # of HH without suitable broadband<br>- Opportunity costs, not pricing; *or*<br>- Treatment of VAT & pricing trends |
| DTT radio cost-savings | £160 | - Opportunity cost, not charge |
| Comms programme | £120 | - Base on actual not estimated cost<br>- Add cost of DVB-T2 comms programme |
| Cost of IPTV devices | £105 | - Number of HH needing support<br>- Treatment of VAT & pricing trends |
| 600 MHz clearance costs | -£260 | [n/a] |
| MNO savings from spectrum | -£400 | - Correct discount rate |
| DTT network costs | -£820 | + Opportunity cost, not charge<br>- Transfer from spectrum proceeds<br>- DTT costs other than Arqiva<br>- Comux and Nimux costs |

We are confident that making these and other necessary adjustments will swing the calculated outcome for monetised impacts from a modest advantage for Option 2 to a rather larger advantage for Option 1.

*Unmonetised impacts*

Further, a directional analysis of the unmonetised impacts suggest that these too are highly likely to prefer Option 1.

| Impact | Likely to favour Option | |
|---|---|---|
| | 1 | 2 |
| **Considered in CBA** | | |
| ***Costs*** | | |
| Earlier DTT decommissioning expense | | X |
| DVB-T set replacement for 600 Mhz redeployment in Opt 2 | X | |
| Traffic costs for IPTV, 2034-44 in Opt 1 | | X |
| Wider digital inclusion support programme in Opt 1 | X | |
| ***Benefits*** | | |
| PSM usage of DTT costs saved in Opt 1 | X | |
| Cost saving for other mast users in Opt 2 | - | - |
| Use benefits from spectrum released earlier in Opt 1 | X | |
| Digital inclusion benefit from accelerated broadband take-up | X | |
| ***Undetermined*** | | |
| Increase in ad revenue due to accelerated IPTV in Opt 1 | X | |
| Environmental impact | - | - |
| **Not considered in CBA** | | |
| ***Costs*** | | |
| Risk of unmanaged DTT collapse in period 2034 -44 in Opt 2 | X | |
| Optionality of earlier two-way interface in home in Opt 1 | X | |
| Distributional impacts (across society) | X | |
| ***Benefits*** | | |
| Consumer benefits of IPTV | X | |

This is particularly so when some issues unconsidered by the CBA are included, such as:

- The small but real risk of an unmanaged collapse of DTT post-2034
- The optionality benefit of a two-way interface in the home (enabled by broadband for IPTV), which can deliver digital benefits even if individuals in the home are not online in the traditional sense
- The distributional impacts of supporting households that skew C2DE and are more likely to have disabilities
- The consumer benefits of the upgrade to IPTV

These all support Option 1.

Thus a revised CBA is likely to show that both monetised and unmonetised impacts provide substantial support for a 2034 transition.

# 2 Introduction

DCMS is looking at the future of TV distribution in the UK. In particular, it is comparing the merits of ending DTT distribution in either 2034 or 2044. It has recently published a Green Paper on this issue.[1]

This Green Paper includes an initial cost-benefit analysis. DCMS notes that it "is not intended to be final analysis to inform a decision, but to allow … industry to understand and provide input on the government's current understanding of the costs and benefits."

This Communications Chambers report provides a critique of the logic and assumptions of the initial CBA, to support a more robust and accurate final CBA. In particular, we compare the approach taken by DCMS to recommended best practice set out in the Treasury's Green Book[2], which sets the guidelines for CBAs.

[1] DCMS, *Watch this Space -A new strategic direction for UK media*, June 2026
[2] HM Treasury, *The Green Book (2026)*, 5 February 2026

# 3 Summary of the CBA

DCMS' CBA considers a range of costs and benefits that may vary, depending on whether there is a managed transition to IPTV in 2034 or 2044. Where possible – for each of the 'monetised impacts' – it calculates an NPV for each of the two options, and further considers low and high cases.

It separately considers a range of unmonetised impacts, that may be no less substantial but where it is not currently possible to calculate NPVs.

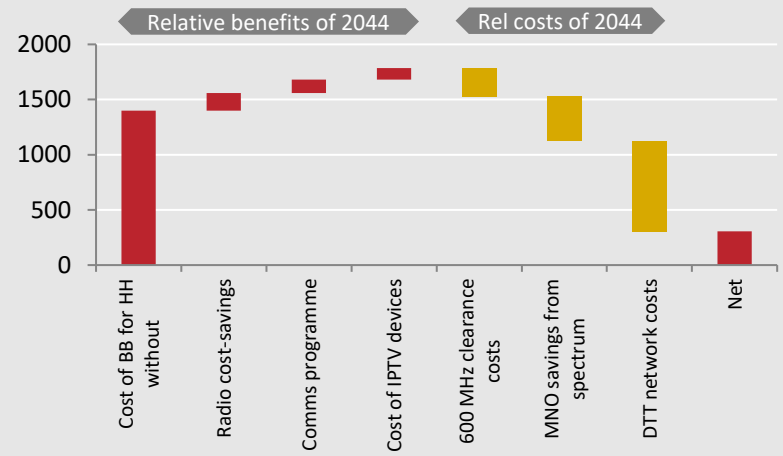
DCMS' results for the monetised impacts of its central cases are as follows:

*NPV (£m) of monetisable IPTV transition impacts*

| Category | Impact | 2034 transition | 2044 transition | Net benefit to 2044 trans'n |
|---|---|---|---|---|
| **Cost** | Cost of BB for HH without | £1,600 | £200 | £1,400 |
| **Cost** | Cost of IPTV devices | £125 | £20 | £105 |
| **Cost** | Comms programme | £410 | £290 | £120 |
| **Cost** | DTT network costs | £0 | £820 | -£820 |
| **Cost** | 600 MHz clearance costs | £0 | £260 | -£260 |
| | | £2,135 | £1,590 | |
| **Benefit** | Radio cost-savings | £0 | £160 | £160 |
| **Benefit** | MNO savings from spectrum | £3,500 | £3,100 | -£400 |
| | | £3,500 | £3,260 | |
| **Net** | | £1,365 | £1,670 | £305 |

DCMS' figures suggest a £305m NPV benefit (for these monetisable impacts) for a 2044 transition over a 2034 transition. This is made up of some impacts that favour 2044 and some that favour 2034, as follows:

Figure 1: NPV (£m) net benefit to 2044 transition




DCMS' net result – a £305m advantage for 2044 – is a fragile one. This figure is small relative to some of the benefits and costs that contribute to it. For instance, this £305m is less than one-quarter of the figure for reduced costs associated with providing broadband to households that need it under a 2044 transition. Thus quite small movements in the estimates of the net NPV of different impacts may have a dramatic impact on the £305m supposed advantage for 2044.

Further, as DCMS notes, the estimates of the NPVs of impacts are themselves volatile. It says: "[T]hese estimates should be treated with caution ... Small changes in inputs (for example, household forecasts, broadband prices, future mobile network traffic) significantly change the monetised impacts."

This is an important point, since – as we shall see – changes to some of the DCMS' input assumptions are warranted.

# 4 Numbers needing support through a transition

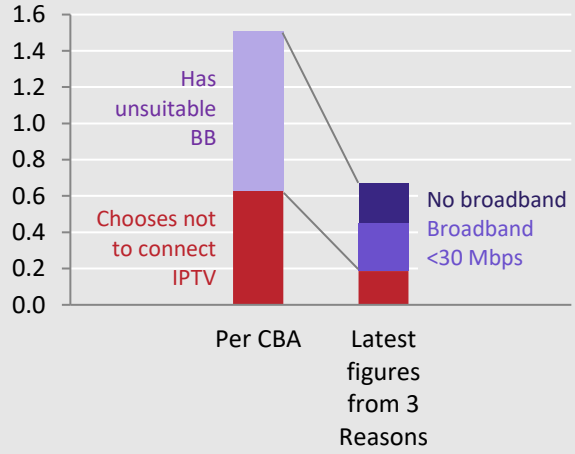
## 4.1 Number of households without IPTV capability

Fundamental to DCMS' estimates of several cost items is its assumptions regarding the number of households without IPTV in 2034 and 2044. DCMS cites 3 Reasons as its source for the 2034 figures, and explains that it has made its own estimates for 2044 based on the 3 Reasons 2034 figures.

The figures DCMS uses from 3 Reasons are 1.51m households without IPTV in 2034, split between 0.63m who have suitable broadband but have not connected IPTV, and 0.88m who do not have suitable broadband (either because they are not online, or their line speed is less than 30 Mbps).

The CBA does not indicate the date of these 3 Reasons figures, but they appear to have been superseded. At time of writing,[4] 3 Reasons' latest figures for 2034 are just 0.67m households without IPTV (split 0.19m choosing not to connect, and 0.48m with unsuitable broadband).[5]

Figure 2: Households needing support, 2034 (m)[3]




In other words, the number of homes predicted to need support in 2034 has more than halved - a 56% reduction, or 0.84m households. (Looking specifically at those with unsuitable broadband, the reduction is 45%).

This reduction might be expected to also result in lower estimates for households needing support in 2044. However, this figure is already far lower – DCMS' estimate for 2044 is just 0.52m. If this had a pro-rata reduction, it would fall just 0.29m, compared to the 0.84m reduction for 2034.

[3] Green Paper, 3 Reasons (as of July 2026)
[4] 12 August 2026
[5] Note that these revised forecasts are based on an assumption that DTT will end in 2034, and that the behaviour of market participants in the run up to 2034 would reflect this. In practice, a 2034 transition *would* be announced well in advance, and in assessing Option 1 (and its associated announcement), it is entirely appropriate to use numbers that reflect the market's response. For instance, if the knowledge of a pending end to DTT encourages a household to make a transition to IPTV of its own accord, it is right that the CBA's analysis of Option excludes any cost of transition support for that household

Thus these revised estimates will reduce forecast transition costs in both 2034 and 2044, but the absolute reduction will be far greater for a 2034 transition.

## 4.2 Treatment of satellite households

Under both options, DCMS is explicit that it "anticipates that satellite and cable television would continue on a purely commercial basis."[6] Thus satellite households will not need transition support – they can continue exactly as they are.

However, for reasons that are unclear, in calculating the costs of the two different options, DCMS includes a cost of support for these satellite households. For instance, in discussing the cost of broadband support it says:

> "We calculate these broadband costs for all households that are not forecasted to have broadband (which includes satellite-reliant households)."[7]

It may be that government or industry would choose to transition satellite households to IPTV at some point – but this is a quite separate decision. Further, DCMS has assumed that satellite provision continues beyond 2044. Thus to include costs to transition satellite households in a CBA of a decision to transition from DTT seems entirely inappropriate.

Note however that the latest 3 Reasons figures are based on a view that Freesat ceases operations in 2032, and therefore all the unconnected households in 2034 in these figures are 'DTT unconnected'. Thus if the 3 Reasons figures are used, the issue of the treatment of satellite households falls away.

[6] Page 64 of the Green Paper
[7] Page 74

# 5 Discussion of monetised impacts

We now turn to a discussion of the individual monetised impacts assessed by DCMS.

## 5.1 Overstatement of broadband costs

By some margin, the biggest single impact in DCMS' analysis, and the one most important to its calculation that the quantified value of Option 2 is higher than that for Option 1, is the 'social costs of broadband for households without broadband or IPTV-capable broadband'. This is intended to cover the cost of broadband for households that would have chosen not to have it, absent a migration to IPTV.

However, there are several ways in which DCMS' analysis is out-of-date or flawed.

*Outdated assumption for number of households without suitable broadband*

As discussed above, the forecasts of households with no or inadequate broadband used by DCMS have since been updated. The number forecast to be without suitable broadband has fallen by 45%, to 0.48m, and this feeds pro-rata into the calculation of costs of a 2034 transition. By itself, this one issue is likely to reduce the calculated advantage for 2044 by £600m or more.

*Retail prices used, not opportunity costs*

Not only are the number of households without suitable broadband overstated, so are the costs per household.

In calculating what it claims is a social cost to remedy this, DCMS uses "uplifted superfast listed prices". The use of retail, list prices in this context is inappropriate.[8]

The Green Book does allow that "[t]he starting point for estimating social costs and social benefits is market prices". However, what these are intended to estimate is:

> "the value of goods and services in terms of their opportunity cost. This is defined as the value of the next best alternative use that those goods or services could be put to."[9]

[8] Nor is it clear why DCMS has 'uplifted' these prices, or to what extent

[9] See 8.1 onwards

In the context of broadband, this is a very different figure than the retail price. A critical point is that the great majority of the cost of providing a particular household with broadband is already sunk.[10] The national, regional and 'last mile' broadband networks are already built. As DCMS notes, even the households who have not taken up broadband will generally have a live voice connection to their households.

When setting retail prices, operators seek to recover this sunk cost. However, if a household does not take broadband, it does not (and can not) provide a saving in any of these sunk costs. Put another way, adding one more broadband customer does not create any opportunity costs in these areas.

This is not to say there are *no* opportunity costs associated with an extra broadband customer. For example, that customer will require a router, installation, and modest additional traffic costs, and will need customer care and billing. (Though regarding care and billing, if the customer is already taking voice services, the additional cost of care and billing will be trivial. In an all-VOIP world the customer will generally also have an IP-enabled router already). However, these opportunity costs are likely to be *far* below retail prices that DCMS has used.

The Green Book offers a relevant example, saying:

> "The social value of a change in energy use is found by multiplying together the quantity of fuel used or saved by a proposal, and the long run **variable** cost (LRVC) of that fuel." [emphasis added][11]

Gas, oil and electricity all come with substantial fixed production and distribution costs, recovered through retail prices. Nonetheless, the Green Book says the relevant figure for a CBA is the variable cost, which will exclude these fixed costs.[12] The same approach should apply in the current case, with the CBA making use of variable costs (such as those relating to the router, installation and so on).

Another way to look at the same issue is that the marginal profit for a broadband operator from an extra customer is likely to be very

[10] There is a minor exception for households that do not already have access to superfast broadband, but by 2034 this will be a tiny group

[11] ¶8.67

[12] *Long run* variable costs, as preferred by the Green Book, may include an element of fixed costs, if the incremental demand is such as to trigger an upgrade in the fixed infrastructure. Given that the fixed broadband network is very substantially already deployed, this issue does not arise for the current CBA

high, because the marginal cost is low. This marginal profit is embedded in the retail price. But it is not a true social cost, merely a transfer from the customer to the broadband provider. The Green Book says[13] that such transfers should either be excluded (in this context deducted from the retail price) or treated as an offsetting benefit to the cost. DCMS' CBA does neither.

A proxy for variable costs is a broadband operator's 'cost of sales'. These are typically less than 40% of revenues.[14] Thus DCMS' use of price, a revenue related figure, is a substantial exaggeration of the variable cost, by a factor of 2.5x or more.

Finally, it is unclear from the CBA how DCMS has treated households that have broadband of less than 30 Mbps. However, higher speeds will be almost universally available by 2034, and the marginal cost of upgrading a household that already has broadband to a higher speed is very low indeed.

### *Treatment of VAT*

*Even if* retail prices were used for the CBA, it would still be necessary to adjust for VAT. This too is an economic transfer, not an opportunity cost, and should therefore be excluded (or offset by the benefit to government, as the recipient of the VAT).

VAT will represent 16.7% of the cost assessed for broadband by DCMS, a further material overstatement (assuming it has not already been adjusted for – DCMS makes no mention of any such adjustment).

### *Treatment of pricing trends*

Of its pricing assumption for broadband, DCMS says:

> "Whilst Ofcom's report shows that broadband prices have fallen in real terms in recent years, there is no evidence this will continue over a 19 year period, so we assume in the Central scenario that broadband prices remain the same as they currently are in real terms."

While it certainly can't be guaranteed that prices will continue to decline for 19 years, this isn't actually the relevant question.

First, DCMS understates the evidence when it says prices have fallen in *recent* years. In fact, prices for superfast have been on a downward

[13] ¶6.38

[14] 37% for Virgin Media and 39% for CityFibre, for example. BT does not break out its accounts in this way. Note that this is 40% of revenues *net of VAT*.

trend for at least a decade, according to Ofcom evidence.[15] To assume (as DCMS does) that this trend immediately ceases is bold, particularly since continuing altnet deployments, the growth of fixed-wireless access, and increased adoption of satellite broadband are all increasing competitive intensity.

Second, DCMS appears to set aside past price trends on the basis that "there is no evidence this will continue over a 19 year period". However, this is an inappropriate test. Even if the declining price trend only continued for (say) three years, and then prices were flat in real terms, then DCMS' assumed prices for 2034 onwards would be too high, and thus would overstate the costs of the 2034 option.

*Conclusion*

DCMS' assessment of high costs for consumer broadband is critical to its finding that (for impacts that can be quantified) Option 2 is preferable overall. However, this assessment is flawed. It uses a now-outdated and too-high number of households without adequate broadband; inappropriately uses retail prices rather than far lower marginal costs; and even if retail prices were to be used, they should be adjusted for VAT and (in the base case) continuing price declines.

Consequently, DCMS' assessment of this cost is almost certainly overstated by a factor of five or more.

## 5.2 Radio costs

This item relates to the increase in charges to radio broadcasters if transmission infrastructure was no longer shared with DTT. The estimate of costs is provided by Arqiva, and the CBA provides minimal detail. We are therefore not able to comment substantially on this item.

However, *if* the estimated figure is a charge, not an underlying cost (as for the broadband costs), then the figure may need to be adjusted to be appropriate for a CBA of social benefits and costs, excluding transfers between parties. By itself, a simple change in price (that does not lead second-order effects) is irrelevant to a CBA,[16] since it is just a value transfer without changes to overall societal benefits and costs.

[15] Ofcom, *Pricing and consumer engagement Trends in the UK communications sector*, 26 February 2026; *Pricing trends for communications services in the UK*, 22 July 2021

[16] Setting aside distributional impacts

## 5.3 Communications programme costs

The IPTV transition will need to be supported by a communications programme. DCMS has estimated the cost of this by:

> "uplifting the Digital UK's planned expenditure for the Digital TV switchover communications campaign to 2026 prices, with updated mailing costs estimated from the cost of letters sent out for ONS surveys".

However, it is unclear why DCMS used a 2008 planned figure for the Digital TV communications cost (£200m)[17] when actual figures after completion of the programme are available. In 2013, Digital UK reported that spend on the communications programme had been just £120.6m.[18] Adjusting for inflation to 2026, this is equivalent to £208m, but this is well below the inflation-adjusted £490m that DCMS uses in its analysis.[19]

If the cost of the communications programme is lower, then the benefit of delaying it by pushing the IPTV transition to 2044 is smaller. While DCMS calculates a present value advantage for 2044 of £120m regarding communications, this would drop to approximately £50m based on the above analysis.

In addition to the overstatement of the IPTV transition communications programme cost, there is a further issue: DCMS does not appear to have included any cost for a communications programme associated with the DVB-T2 transition in Option 2.

Under Option 2, broadcasters will shift DTT transmission entirely to DVB-T2, a more efficient protocol. This will enable the release of 600 MHz spectrum. However, for households with older TV sets, it will require a set upgrade (much as did digital switchover).

While DCMS has included (as an unquantified cost) the costs of the sets themselves, it does not appear to have included any costs for the necessary communications programme – viewers would need to be informed of the need to upgrade to avoid losing key channels. By 2034, the number of households without DVB-T2 capable sets may be modest, but there will need to be a full national campaign to avoid leaving anyone behind.

---

[17] NAO, *Preparations for Digital Switchover*, 27 February 2008

[18] Digital UK, *Directors' report and financial statements (2012)*, 4 September 2013

[19] DCMS does also adjust for increased postage costs. Our estimate also makes such an adjustment, albeit we have grossed up the postage cost in the Digital Switchover campaign based on current stamp costs, whereas DCMS uses ONS postage costs related to ONS surveys (a calculation we are not in a position to replicate)

Thus Option 2 will (in addition to the 2044 IPTV transition communications programme) also require a perhaps comparable spend to support a 2034 DVB-T2 transition communications programme. The CBA does not address this cost.

## 5.4 Cost of IPTV devices

For consumers with TV sets incapable of receiving IPTV, an equipment upgrade will be required. DCMS says:

> "We cautiously estimate that all the non-IPTV households at the time of either transition … do not have an IPTV-capable device and therefore will require one in order to access IPTV. We based our calculations on the original £69.99 Freely puck price before high demand and a global parts shortage forced a £20 increase. .... We assume in the Central scenario that prices remain the same as they currently are in real terms"

Again there are several issues with DCMS' approach.

*"All the non-IPTV households at the time of either transition … do not have an IPTV-capable device"*

This is a highly conservative assumption. At time of writing, the cheapest available TVs on each of Currys, Argos and AO is IPTV capable, and it seems likely that this has been the case for some while. By 2034, the number of sets that are not IPTV-capable is likely to be extremely small, just due to the natural replacement cycle.

*Calculation methodology unclear*

Our first observation on DCMS' calculation is that we are unable to replicate their results. As Figure 3 shows, if we take the number of non-IPTV households in 2034, per DCMS' figures set out in its Figure 2, and multiply this by the £69.99 cost of a device, the total cost for 2034 comes to £106m (before discounting to present value). However, DCMS' figure is £150m. The reason for this difference is not clear. This is particularly notable since the same calculation for 2044 gives a very similar result to DCMS' figure.

Figure 3: IPTV device undiscounted cost estimates

| | **2034** | **2044** |
|---|---|---|
| Non-IPTV households (m) | 1.51 | 0.52 |
| Unit cost (£) | 69.99 | 69.99 |
| Total cost (£m) | 106 | 36 |
| | | |
| Total cost per DCMS (£m) | 150 | 37 |

*Outdated assumption for number of households without broadband*

IPTV device costs is another area where the revision to 3 Reasons' forecasts make a substantial difference. The forecast number of non-IPTV households in 2034 has fallen by 56%, and this feeds pro-rata into the costs of providing IPTV devices.

*Inappropriate inclusion of VAT*

As with the broadband cost, DCMS' calculation of IPTV device costs appears to be based on retail prices embedding VAT. For a social cost analysis, this should be set aside. This would reduce costs in both 2034 and 2044 by 16.7%.

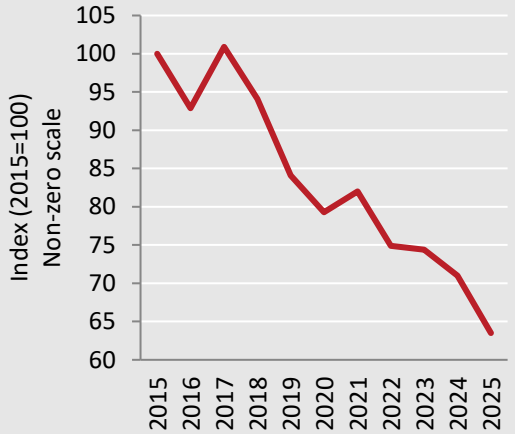
*Underlying cost much lower*

As with broadband, the use of retail prices (even adjusted for VAT) is likely excessive. The social cost is the underlying cost to manufacture and distribute, excluding margin for the manufacturer.

*Treatment of price trends*

A further issue is DCMS' treatment of future unit costs. It assumes these remain flat in real terms. However, this is a surprising assumption for consumer electronics, where devices of a given capability tend to fall in price over time. Figure 4 shows the price trend for 'Equipment for the reception, recording and reproduction of sound and vision', the category that covers devices like the Freely puck. Over the ten years to 2025, prices fell by almost 40%. A continuation of this historic trend would seem to be a more natural central case assumption rather than (as DCMS does) assuming that price declines suddenly stop entirely.

Figure 4: CPI for 'Equipment for the reception, recording and reproduction of sound and vision'[20]




Indeed, even in DCMS' high case, prices appear only to fall by 20% by 2044, a far lower rate than the past trend.

Moreover, it seems likely that the announcement of an IPTV transition would help create extra demand for pucks, further contributing to unit cost declines.

*Conclusion*

In combination, these adjustments will reduce the cost advantage for Option 2 against this heading by around 80%.

## 5.5 600 MHz clearance costs

DCMS relies on an Arqiva estimate of this cost, and provides minimal discussion of the approach. We are not able to comment on this item, other than to note that from the description in the CBA, it is

[20] ONS, *CPIH INDEX 09.1.1.2 Equipment for the reception, recording and reproduction of sound and vision 2015=100* [accessed 14 July 2026]

unclear whether the Arqiva estimate includes margin (which should rightly be excluded).

## 5.6 MNO savings from spectrum

The critical issue regarding the benefits to MNOs is the discount rate DCMS has used.

Discounting is critical to any CBA. It reflects the fact that people would rather receive benefits sooner and incur costs later. A 'discount rate' is used to convert a stream of future costs and benefits into a single current value, with more distant costs and benefits scaled down to a greater degree.

For such a calculation, the choice of discount rate is critical. The higher the rate, the more future flows will be scaled down.

The Treasury's Green Book says:

> "Monetisable costs and benefits should also be discounted using the Social Time Preference Rate (STPR)."[21]

The STPR is "set at 3.50% in real terms for years 1 to 30 of an appraisal."

However, this is not the approach the DCMS CBA takes. While many elements in the CBA *do* use the 3.5% rate, crucially (as DCMS acknowledges) the estimate of 'Mobile Network Operators Cost-Savings' uses a 7.2% discount rate. DCMS says it will "will explore these discount rates further in future analysis." However, this use of divergent discount rates is a fundamental error in the current analysis, and one that introduces a significant skew.

The higher discount rate used incorrectly for MNO savings reduces the calculated value of these savings, and thus in turn reduces the gap in these savings between Option 1 and Option 2. DCMS' calculated gap is £400m (to the advantage of Option 1). A rough estimate suggests that using the correct discount rate would increase this gap to around £620m.

In other words, DCMS' incorrect discount rate results in a £220m overstatement of the relative benefits of Option 2. Given that DCMS' total estimate of the advantage of Option 2 is £305m, this is very significant. Even without any other adjustments, correcting this item alone would reduce the claimed advantage of Option 2 (based on

[21] ¶2.22

monetisable impacts) to just £85m, well within the margin of error of the overall calculation.

## 5.7 DTT network cost savings

This represents the cost of DTT transmission saved over a decade by ceasing DTT in 2034. DCMS says "[t]he costs are primarily driven by the annual payments that multiplex operators pay to use the DTT infrastructure", and are based on Arqiva estimates.

The figures are somewhat opaque. The CBA shows a £1,300m total cost, or £130m per year. We suspect this is based on a rounded average of Arqiva's estimates of annual costs of £139m or £123m, with the lower figure assuming the DVB-T2 refresh is funded from spectrum proceeds.[22] If so, the averaging is inappropriate. Any funding via spectrum proceeds is simply a transfer between parties, and should not sit in a CBA. Thus the appropriate starting point is the £139m figure.

Further, the figure seems to relate narrowly to DTT transmission charges to Arqiva. However, this is not the only cost to continuing DTT broadcasting. Broadcasters will have separate distribution, coding and multiplexing costs.[23] These non-Arqiva costs that could be avoided if DTT distribution ceased in 2034 appear not to be treated in the CBA.

The Arqiva figure also relates solely to national muxes, we understand. Costs for Comux and Nimux[24] should also be included.

Adjusting for these three issues would favour Option 1.

On the other hand, as with the broadband and radio costs, the CBA's analysis appears to be based on a charge, rather than an underlying cost, which would be more appropriate for a CBA. As a proxy, Arqiva's gross margin is 62%,[25] which suggests that the avoided underlying transmission costs may be appreciably lower than the avoided charges. Adjusting for this would favour Option 2.

[22] DCMS, *Stakeholder Forum Papers: DTT - Freeview TV 2034 to 2044*, 23 June 2026
[23] Ibid
[24] Respectively, the muxes for local TV and for RTÉ and TG4 in Northern Ireland
[25] Arqiva Group Ltd, *Annual Report and Financial Statements For the year ended 30 June 2025*, 11 December 2025

## 5.8 Conclusion

We can summarise the issues with the CBA's approach to the monetised impacts as follows:

| Impact | Net benefit to 2044 trans'n | Relevant adjustments ['-' ⇒ lower benefit from 2044 trans'n] |
|---|---|---|
| Cost of BB for HH without | £1,400 | - # of HH without suitable broadband<br>- Opportunity costs, not pricing; *or*<br>- Treatment of VAT & pricing trends |
| DTT radio cost-savings | £160 | - Opportunity cost, not charge |
| Comms programme | £120 | - Base on actual not estimated cost<br>- Add cost of DVB-T2 comms programme |
| Cost of IPTV devices | £105 | - Number of HH needing support<br>- Treatment of VAT & pricing trends |
| 600 MHz clearance costs | -£260 | [n/a] |
| MNO savings from spectrum | -£400 | - Correct discount rate |
| DTT network costs | -£820 | + Opportunity cost, not charge<br>- Transfer from spectrum proceeds<br>- DTT costs other than Arqiva<br>- Comux and Nimux costs |

As the table shows, it appears DCMS' analysis appreciably overstates the benefits of a 2044 transition, across most of the items (albeit there does appear to be an understatement related to one aspect of DTT network costs).

Some of the necessary adjustments are likely to be very substantial. In particular the adjusted cost of broadband for households without is likely to be far lower.

While we are not in a position to provide a comprehensive recalculation of the CBA figures, we are confident that these adjustments swing the calculated outcome from a modest advantage for Option 2 to a rather larger advantage for Option 1.

# 6 Discussion of unmonetised impacts

The CBA also includes a number of unmonetised impacts. We do not seek to quantify these, but instead consider whether – when considered individually and in aggregate – they are likely to favour Option 1 or Option 2.

We also discuss some other unquantifiable issues that the CBA did not address.

## 6.1 The CBA's unmonetised impacts

*DTT infrastructure decommissioning costs*

The CBA does not discuss this item. However, as a cost delayed to 2044 by Option 2, it is an item that will favour that option.

*Replacing DVB-T-only televisions by 2035*

Option 2 requires a replacement of DVB-T sets, to support redeployment of 600 MHz spectrum. There may only be a modest number of such sets, but the social cost of the associated communications programme is likely to be material, as discussed above.

*Increased traffic costs for broadcasters*

The cost of IPTV delivery is a cost for Option 1. However, as to its scale, the Future TV Taskforce has observed:

> "Distributing a viewer hour over DTT is already an order of magnitude more expensive than delivering the same viewer hour over the internet, and as DTT viewing falls (whilst DTT costs remain fixed) this cost disparity is widening."[26]

This suggests that this traffic cost would be dramatically smaller than the DTT Network Costs included in the monetised figures. Further, a CBA is better based on the underlying marginal costs, not the prices paid by broadcasters for IPTV delivery, which will bring the figure down further.

Finally, for households that have IPTV available to them, they may well be using IPTV streams, even prior to any 2034 termination of DTT. This may be because they themselves choose such streams, which will often be higher quality than the available DTT broadcast. Alternatively, the broadcaster may set the IPTV stream to be preferred, since this provides better usage information and the

[26] Future TV Taskforce, *BBC Charter Review – Written evidence*, 3 June 2026

ability to target ads. This all reduces the amount of additional IP traffic costs triggered by the switch-off of DTT.

*Potential wider (non-TV) digital inclusion support programme*

The IPTV transition will, in and of itself, support digital inclusion (see below). Further, it may represent a platform for a wider programme for digital inclusion.

The net benefits from such a programme (after its costs – including a help scheme) are likely appreciably greater if it runs in 2034 rather than 2044, for three reasons:

- If there are synergies with the IPTV transition, they seem likely to be greater if the IPTV transition is itself relevant to more households (as will be the case in 2034)
- There are likely to be more households that have potential to be accelerated online in 2034 than in 2044 (when the 'holdouts' still without internet may be highly resistant)
- The current, discounted value of a 2034 programme will, all else being equal, be higher than one in 2044.

Thus this item is likely to substantially favour Option 1.

*Alternative PSM usage of annual DTT funding savings*

This item will likely have net positive social benefit. However, there are some notes of caution. First, the value of the DTT savings have already been captured in the quantified items, so what is relevant here is only the incremental return on the spend of the savings, not the spend itself. Second, in Option 2, the spend does not disappear, it will instead sit with Arqiva rather than the broadcasters (since the DTT savings come from Arqiva). DCMS cites a GVA multiplier for the BBC to support a wider economic benefit, but the critical question in this context is the difference between the GVA multipliers for the BBC and Arqiva, which is unknown.

However, there is a clearer case for the social (rather than economic) impact. The public service broadcasters are intended to deliver public value, in a way in which a purely commercial entity such as Arqiva is not.[27]

Thus, while the scale of this impact is uncertain, its direction is clearer. A shift of funds to PSMs is likely to be beneficial (beyond the

[27] This is not to say that Arqiva's activities do not have social value – they certainly do – but it is not integral to the organisation, unlike (say) the BBC

immediate value of the funds themselves), and thus an earlier shift in 2034 is likely to be positive.

*Cost-savings to other mast users*

As discussed above in regard to the cost savings to radio users, this item appears to represent a price change, rather than a true saving in underlying cost. As such, it may not be relevant to a CBA.

*Use benefits from MNOs network improvements due to usage of 500 MHz and 600 MHz spectrum bands*

Availability of additional low frequency spectrum has the potential to support better in-building coverage for end-users, to make viable additional investment by MNOs and so on. The interaction of these benefits with the CBA's calculation of spectrum value (which assumes unchanged network performance) is complex. So too is the monetisation of such benefits.

However, clearly the end-user benefits of additional low frequency spectrum for MNOs will be greater in Option 1, where that spectrum is available appreciably earlier.

*Digital inclusion benefits from accelerated broadband take-up (2034 IPTV transition)*

While the impact of the IPTV transition on digital inclusion may be hard to quantify, it can only be positive. Households that previously may have faced both cost and skills barriers to inclusion will instead only face skills barriers[28] (since broadband will represent a sunk cost, already procured to support IPTV).

Thus – as DCMS notes – for this item Option 1 is preferable, since a 2034 transition accelerates the digital inclusion benefit.

*Change in ad revenue from bringing forward the full shift from DTT to IPTV to 2034*

Streamed rather than broadcast delivery creates the opportunity for targeted advertising, a net benefit to both TV companies and their advertisers,[29] and one which all major commercial broadcasters have been pursuing.

Given this is a benefit, it is better that this option is available earlier – meaning that this item is a positive for a 2034 transition. That said, we note that very few households will be using DTT in 2034 and these households will be some of the least commercially attractive to

[28] There may also be a one-off equipment cost, if the household has neither a smartphone nor computer

[29] This is not to say that targeted ad revenues have been sufficient to replace declining broadcast ad revenues (given declining overall viewing) – rather, per hour of viewing, targeted advertising will bring more revenue

advertisers; as such the overall advertising impact from shifting them to IPTV earlier is expected to be minimal.

*Environmental impacts from shift from DTT technology to IPTV*

We have no comment on this item, other than to note the finding of the Stakeholder Forum Paper on environmental impact, which was that:

> "Both Ofcom and BBC models indicate that whilst differences in the distribution element may exist, overall operational energy demand is likely to be broadly equivalent between DTT and IP."[30]

## 6.2 Other unmonetised impacts

In addition to the unmonetised impacts mentioned by the CBA, we believe there are four others worth consideration.

*Risk of an unmanaged collapse of DTT*

There are significant pressures on the long-term commercial case for DTT transmission:

- Costs are fixed and significant
- Viewership is in decline
- There may be growing opportunity cost relative to IPTV distribution given the inability to target advertising
- The audience is gradually becoming less attractive for advertisers, as it increasingly skews older and poorer

Conversely, wider adoption and convenience of IPTV based viewing will mean that a channel that decides to abandon DTT will see lesser potential lost viewing as a result – much of their DTT viewing will be recovered via IPTV. (This is particularly the case in a Freely household, where the transition may be invisible to the consumer).

Especially for smaller channels (for whom the fixed cost is particularly problematic), this creates a growing logic for leaving DTT. Further, if smaller channels leave, this shifts the fixed cost burden onto the remaining channels, giving them a greater incentive to leave the platform also. There is the potential for a spiral of channel loss. As the channels available diminish, consumers will also move away from DTT, further accelerating the spiral.

[30] Infrastructure Working Group of the Future of TV Distribution Stakeholder Forum, *Infrastructure - Environmental impact in future of TV distribution*, 23 June 2026

In a worst-case scenario, only the main PSB channels (with a mandate to appear on DTT) might remain. This would be a very poor outcome for consumers, leaving many stranded on a minimal service with no transition support.

This is not simply a hypothetical – it is exactly what has happened in Sweden. Due to falling linear viewing, stronger IP offers and rising DTT costs, only the five PSB channels (obligated to be there) remain on the DTT platform. Around forty services have closed.[31]

We do not suggest that such an 'unmanaged collapse' of DTT is likely in the UK, but it is a risk. Option 2 means that the UK must carry this risk an additional ten years, into a period where diminishing DTT viewing makes it ever more likely.

*Optionality of two-way interface in the home*

The CBA notes the digital inclusion benefits of an earlier IPTV transition. However, bringing broadband to the TV set may have benefits even if the household doesn't go online in the traditional sense.

Inevitably, some households may not choose to use the internet via computers or mobile devices. They may lack the skills for example (despite support programmes) or be unable to buy the devices.

However, under an IPTV transition, the TV set itself becomes a way to access interactive services. For example, a simplified 'walled garden' of essential public services could be created within the IPTV interface, covering basics such as booking GP appointments, health reminders, checking bank balances and so on. This could deliver some of the most essential benefits of being online to individuals who were not in a position to engage with the full internet.

Separately, even in a household where the occupants are not online, a broadband connection in the house can support smart devices (perhaps installed by carers), smart meters and the like.

These are two examples of the optionality created by additional broadband households, even if they are not internet-using households. A 2034 transition creates this optionality ten years earlier.

[31] DCMS, *Stakeholder Forum Papers: Annex A - International context in future of TV distribution*, 23 June 2026

*Distributional impacts*

Distributional impacts – how a proposal shifts costs and benefits between different groups in society - can be an important aspect of CBAs. All else being equal, a proposal that shifts value to those with less is likely to be beneficial. The Green Book devotes an entire chapter to distributional impacts.

They are unaddressed in DCMS' initial CBA, but they are likely significant in this context. Those choosing not to take broadband are disproportionately C2DE (79%) and more likely to have a disability (41%).[32] Option 1 will bring broadband to these households from 2034 onwards, and will thus have a positive distributional impact.

*Consumer benefits of IPTV*

The CBA treats IPTV as simply a distribution alternative to DTT. It takes no account of the consumer benefits – the advantages of Freely over Freeview. Freely offers significantly more HD channels; makes on-demand content available; enables pause and restart of live TV; and so on. It also offers important accessibility benefits, such as a built-in accessible TV guide including text-to-speech for on screen navigation, the ability to show only programmes with subtitles and so on.

While quantifying the value of these benefits may be challenging, the fact that consumers are currently paying roughly £90 for Freely pucks suggests that – for at least these consumers – the value of these benefits is comfortably over £90.

These benefits – which Option 1 accelerates – are treated nowhere in the CBA, and are likely to substantially or entirely offset the costs of providing IPTV devices.

[32] University of Exeter with the University of Leeds, MTM, 3 Reasons and Real Wireless, *Future of TV Distribution*, 7 October 2024

## 6.3 Conclusion

Directionally, a significant majority of these unmonetised impacts favour Option 1:

| Impact | Likely to favour Option | |
|---|---|---|
| | 1 | 2 |
| **Considered in CBA** | | |
| *Costs* | | |
| Earlier DTT decommissioning expense | | X |
| DVB-T set replacement for 600 Mhz redeployment in Opt 2 | X | |
| Traffic costs for IPTV, 2034-44 in Opt 1 | | X |
| Wider digital inclusion support programme in Opt 1 | X | |
| *Benefits* | | |
| PSM usage of DTT costs saved in Opt 1 | X | |
| Cost saving for other mast users in Opt 2 | - | - |
| Use benefits from spectrum released earlier in Opt 1 | X | |
| Digital inclusion benefit from accelerated broadband take-up | X | |
| *Undetermined* | | |
| Increase in ad revenue due to accelerated IPTV in Opt 1 | X | |
| Environmental impact | - | - |
| **Not considered in CBA** | | |
| *Costs* | | |
| Risk of unmanaged DTT collapse in period 2034 -44 in Opt 2 | X | |
| Optionality of earlier two-way interface in home in Opt 1 | X | |
| Distributional impacts (across society) | X | |
| *Benefits* | | |
| Consumer benefits of IPTV | X | |

While the net impact will of course depend on the scale of the individual items, some of the items supporting Option 1 appear likely to be significant, notably those relating to digital inclusion.

# 7 Conclusion

DCMS has appropriately caveated its initial cost benefit analysis. However, based on the above review, we are confident that bringing the CBA into closer alignment with Green Book principles and updating certain assumptions – notably the number of households without IPTV in 2034 – will significantly shift the net monetised impact towards preferring Option 1.

A review of the unmonetised impacts suggests that these too will favour Option 1.

In the round therefore, a revised CBA is likely to provide substantial support for a 2034 transition.