



Regulatory Impact Assessment
for the Wireless Telegraphy
(Licence Charges) (Amendment)
Regulations 2014

Issued:

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Section 1

Regulatory Impact Assessment

Introduction

- 1.1 Ofcom acts consistently with the Government practice that, where a statutory regulation is made, a Regulatory Impact Assessment ('RIA') should be undertaken. We also comply with our duty under section 7 of the Communications Act 2003 (the "2003 Act") to undertake impact assessments.
- 1.2 The analysis in this document, and set out more fully in the consultation documents and statements referred to, is an impact assessment relating to the Wireless Telegraphy (Licence charges) (Amendment) Regulations 2014 (the "Regulations"). It is consistent with the Government practice on RIAs and Ofcom's duty under the 2003 Act.
- 1.3 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 2003 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 our activities. However, as a matter of policy we are 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://stakeholders.ofcom.org.uk/binaries/consultations/better-policy-making/Better_Policy_Making.pdf.
- 1.4 The impact of our policy decisions that have been implemented by the Regulations has already been assessed in the other documents referred to in this RIA. Accordingly, a separate impact assessment for the Regulations may not strictly be necessary. We nevertheless publish this document, which summarises the earlier, fuller assessments, as a matter of good practice.

Background

- 1.5 This impact assessment relates to our decision to update the regulations that prescribe charges for wireless telegraphy licences by amending the Wireless Telegraphy (Licence Charges) Regulations 2011 (SI 2011/1128)¹ (the "2011 Regulations"). The Regulations create some new charges (fees) and amend a number of existing wireless telegraphy products.
- 1.6 Under section 12 of the Wireless Telegraphy Act 2006 (the "WT Act"), Ofcom may prescribe in regulations the sums payable in respect of wireless telegraphy licences other than those awarded by auction. This power enables us to recover the cost of administering and managing WT Act licences. However, section 13 of the WT Act permits us to recover sums greater than those we incur in performing our spectrum management functions (this is termed Administered Incentive Pricing (AIP)), to reflect a range of spectrum management objectives. In particular, in order to provide

¹ <http://www.legislation.gov.uk/uksi/2011/1128/made/data.pdf>

incentives for licensees to use their spectrum more efficiently. This goes to discharging our duties under section 3 of the WT Act.

- 1.7 In 2012 Ofcom introduced AIP-based fees for a variety of aeronautical licence classes. The full AIP-rates for the aeronautical licence classes affected are being phased in over a period of five years. One of the fee changes implemented by these Regulations is the third phase of that five year programme. The impact of the introduction of AIP-based fees, including the benefits of these fee changes, has been consulted on previously and was included in the two preceding RIAs which were published alongside our 2012 and 2013 amendments to the 2011 Regulations.
- 1.8 The Regulations also implement interim AIP-based fees for Point to Point Fixed Links in the bands 71.125 to 73.125 GHz and 81.125 to 83.125 GHz and introduce cost-based fees for the three digital terrestrial television broadcasting licences set out below.

Our Decision

- 1.9 We have decided to make the Regulations to:
- i) implement the third phase of a five year programme of fee changes for some Aeronautical Station licence classes;
 - ii) implement our policy decision to introduce interim fees for Point to Point Fixed Links in the bands, 71.125 to 73.125 GHz and 81.125 to 83.125 GHz;
 - iii) introduce cost-based fees for digital terrestrial television (DTT) broadcasting licences (these are: the national DTT multiplexes, local television DTT multiplex and Northern Ireland DTT multiplex); and
 - iv) remove references to specific technologies (2G and 3G) for Public Wireless Networks in Jersey, Guernsey and the Isle of Man, while leaving the level of fees unchanged.
- 1.10 We have previously consulted, and made decisions, on the policy behind all of our fee changes in the following documents (which include full impact assessments where relevant and appropriate):
- our consultation document, “*Applying spectrum pricing to the Aeronautical sector, a second consultation*”² (the “December 2009 Consultation”) published December 2009;
 - our statement of December 2010 “*Fees for aeronautical radio licences, a statement*”³ (the “December 2010 Statement”);
 - our consultation, “*Bespoke licence fees for aeronautical VHF communications frequencies, a further consultation*”⁴ published on March 2011 (the “March 2011 Consultation”);

² http://stakeholders.ofcom.org.uk/binaries/consultations/spectrum_pricing/summary/aip2.pdf

³ http://stakeholders.ofcom.org.uk/binaries/consultations/spectrum_pricing/statement/statement.pdf

⁴ <http://stakeholders.ofcom.org.uk/binaries/consultations/bespoke-fees-aeronautical/summary/condoc.pdf>

- our statement of June 2011, “Bespoke licence fees for aeronautical VHF communications frequencies, a statement”⁵ (the “June 2011 Statement”);
- our consultation of August 2013, “Review of the Spectrum Management Approach in the 71-76 GHz and 81-86 GHz bands”⁶ (the “70/80 GHz Consultation”);
- our statement of December 2013, “Statement on the future management approach for the 71-76 GHz and 81-86 GHz bands”⁷ (the “70/80 GHz Statement”);
- our consultation of September 2013, “*Spectrum Pricing: A framework for setting cost based fees*”⁸ (the “Spectrum Pricing Consultation”);
- our statement of 17 March 2014, “*Spectrum Pricing: A framework for setting cost based fees*”⁹ (the “Spectrum Pricing Statement”);

1.11 Further information regarding the awards for the Public Wireless Networks in the Jersey, Guernsey and the Isle of Man can be found in the following documents:

- The Isle of Man consultation of 1 July 2013 “Consultation on the Licensing of 4G Mobile Services and Notice of Proposed Modification to Existing Licences”¹⁰ (the “July 2013 Consultation”);
- The Isle of Man statement of 10 September 2013 “*The “Response to Consultation and Decision on the Licensing of 4G Mobile Services*”¹¹ (the “September 2013 Statement”); and
- The Channel Islands Competition and Regulatory Authorities (CICRA)¹² consultation of 23 December 2013 “*Pan-Channel Island Second Consultation on award of 800 MHz and 2.6 GHz Spectrum*”¹³ (the “CICRA Consultation”).

The citizen and/or consumer interest

1.12 Our principal duty under section 3 of the 2003 Act is to further the interests of citizens in relation to communications matters; and of consumers in relevant markets, where appropriate by promoting competition. We take account of the impact of our decisions upon both citizen and consumer interests in the markets we regulate. We must, in particular, secure the optimal use for wireless telegraphy of spectrum and have regard to the principle under which all regulatory activities should be targeted only at cases in which action is needed. In deciding to make changes we have considered the wider impact beyond immediate stakeholders in the

⁵ http://stakeholders.ofcom.org.uk/binaries/consultations/bespoke-fees-aeronautical/statement/8197_statement.pdf

⁶ <http://stakeholders.ofcom.org.uk/binaries/consultations/70-80ghz-review/summary/condoc.pdf>

⁷ <http://stakeholders.ofcom.org.uk/binaries/consultations/70-80ghz-review/statement/statement.pdf>

⁸ <http://stakeholders.ofcom.org.uk/binaries/consultations/cbframework/summary/condoc.pdf>

⁹ <http://stakeholders.ofcom.org.uk/binaries/consultations/cbframework/statement/CBFstatement.pdf>

¹⁰ <http://www.gov.im/lib/docs/cc/consultations/consultationonthelicensingof4g.pdf>

¹¹ <http://www.gov.im/lib/docs/cc/4gconsultationresponse100913fina.pdf>

¹² The Jersey Competition Regulatory Authority (JCRA) and the Guernsey Competition and Regulatory Authority (GCRA) are together referred to as CICRA

¹³ <http://www.cicra.gg/files/13-54%20second%20spectrum%20consultation.pdf>

radiocommunications community. We believe that our decision will be of benefit to consumers for the following reasons:

- v) The continued use of AIP in the circumstances where we have decided to apply AIP will encourage more efficient use of the radio spectrum. This will enable consumers to continue to benefit from advances in technology and the new services they may offer.
- vi) It is appropriate to charge cost based fees in circumstances where spectrum is not scarce (and therefore it is not appropriate to apply AIP), or where fees based on the opportunity cost of the spectrum would be lower than the relevant costs incurred in managing the spectrum. Therefore, the costs of managing spectrum used for broadcasting should be borne by broadcasters benefitting from use of the spectrum so that other users of this spectrum do not pay a disproportionate share of management costs.
- vii) We believe our decision to adopt an Ofcom Co-ordinated approach for the Fixed Links bands in 71.125 to 73.125 GHz and 81.125 to 83.125 GHz enables the use of this spectrum, by different types of users, including mobile backhaul. The approach will help support the roll out of 4G backhaul and also encourage further investment and innovation in this sector.
- viii) The intended effect of liberalising Public Wireless Network licences in Jersey, Guernsey and the Isle of Man is to improve the efficiency of spectrum management and use¹⁴. It provides the means to empower spectrum users to adopt new services and technology and to have stronger commercial incentives to utilise spectrum rights as efficiently as possible. It also removes unnecessary restrictions, so that there will be increased scope to use spectrum in different ways to introduce innovative services and technologies.

Ofcom's policy objective

1.13 We have a number of duties under section 3 the WT Act. These include having regard when carrying out our radio spectrum functions to:

- ix) the extent that spectrum is available for use; and
- x) the desirability of promoting the efficient management and use of the spectrum for wireless telegraphy.

1.14 Section 12 of the WT Act permits Ofcom to prescribe in regulations the sums payable in respect of wireless telegraphy licences other than those awarded by auction.

Options considered

1.15 Having made the relevant policy decisions in the documents referred to in paragraph 1.10 above, the principal options open to us in connection with the Regulations were:

- xi) to make the Regulations that introduce new fees for certain licence classes and change others; or

¹⁴ Ofcom must have regard to the availability of spectrum to meet current and future demand from all users and to the desirability of promoting efficient management and use, economic and other benefits, innovation and competition. See section 154, Communications Act 2003.

- xii) to do nothing (not making the Regulations and maintaining the fees in the 2011 Regulations as amended).

Analysis of the different options

- 1.16 The following section assesses the impact of options open to Ofcom by reference to the principal changes that are made by the Regulations.

Make Regulations

- 1.17 The Regulations will have important benefits for all persons applying for a WT Act licence, particularly in terms of increased transparency and legal certainty.

Aeronautical licence classes

The benefits of AIP based fees for certain aeronautical licence classes.

- 1.18 Where the supply of spectrum is sufficient to meet demand, without recourse to prescriptive command and control of assignments, there is little to be gained in efficiency terms from setting fees other than to recover some or all of our relevant administrative costs. However, where there is excess demand for spectrum, we believe the cost to others and to the wider UK economy should be recognised by the current users so that they can make appropriate decisions. AIP based licence fees are intended to achieve this outcome.
- 1.19 There is excess demand for these frequencies from within the aeronautical sector and it is often very difficult to meet new requests for aeronautical VHF frequencies required by aerodromes and air traffic controllers. Europe is reviewing a number of measures to alleviate VHF congestion, including an extension of the use of narrower 8.33 kHz channels at additional flight levels. However, in our view it is too early to conclude that these measures will result in additional capacity such that use of aeronautical frequencies no longer has an associated opportunity cost.
- 1.20 We recognise that there are operational and regulatory constraints on the ability of spectrum users to respond to fees by using spectrum more efficiently in the short term. However, we consider that there is scope to respond in the long term, even if a change of spectrum use necessitates significant changes to the way operations are conducted or changes to the services provided in some cases.
- 1.21 There is also potential excess demand from other sectors of the economy which face shortages of spectrum which could be overcome if spectrum currently used by the aeronautical sector was made available to them. We recognise that it is not feasible to use aeronautical VHF communications frequencies for other applications today as this is likely to cause unacceptable interference with the current applications, in contravention of the UK's obligations under international treaties. Whether this situation might change in future, and in what timeframe, is unclear. In determining the appropriate level of fees, therefore, no account has been taken of potential use of these frequencies by other sectors of the UK economy.
- 1.22 In conclusion, we consider that licence fees based on opportunity costs will help manage excess demand for these frequencies, and promote efficiency improvements where possible, making it more likely that those who provide spectrum dependent services which are highly valued by UK citizens and consumers will have access to the frequencies which they need to deliver those services. We conclude that this will generate net benefits for UK citizens and consumers.

- 1.23 Where frequencies are used on a “commons” basis, often for safety of life purposes, Ofcom has decided to apply zero rated fees (e.g. SafetyCom, international distress and Fire frequencies).
- 1.24 We have phased-in fee increases to mitigate the transitional financial impacts that specific licensees may experience. This should reduce risks of inefficient responses to the new fees, including from smaller organisations which may be proportionately affected. A phased introduction of fees enables us to identify the impacts of incremental changes for particular operators prior to full fees applying. By gradually introducing fees over time, this will ensure that Ofcom can respond quickly, as and when appropriate, during this period.
- 1.25 Our analysis explicitly recognised the critical importance of safety in the aeronautical sector and the relevant duties of the Civil Aviation Authority (CAA) as safety regulator. Where services which are provided using spectrum support the provision of public goods, the appropriate policy interventions to maximise such social value, or minimise social dis-benefits, take the form of targeted subsidies and taxes for the outputs concerned, or direct regulation, rather than subsidies for the required inputs (including spectrum). The CAA has confirmed that it has adequate powers to respond to any safety concerns arising from Ofcom’s decision to apply AIP to the aeronautical sector, and that the adequacy of VHF communications provision will be subject to safety regulation by the CAA using appropriate regulatory instruments taking into account safety justification provided by the service providers via, for example, safety cases.

The incremental benefits of bespoke pricing compared with generic pricing

- 1.26 The objective of applying bespoke pricing, instead of generic pricing, to some types of aeronautical radio licences, is to provide more effective incentives for licensees to use spectrum efficiently. The more closely charges reflect opportunity costs, the larger the gains from more efficient usage are likely to be. Generic fees will cause spectrum users to review the volume of each assignment type that they require, potentially releasing frequencies for other aeronautical users who place a higher value on that resource. However bespoke fees which vary according to the geographic impact of different assignments can provide additional incentives for licensees to consider using the minimum Designated Operational Coverage (DOC) consistent with their operational and regulatory requirements, thereby potentially releasing spectrum for other aeronautical users, and making it easier over time for the CAA to accommodate current and future demand for assignments.
- 1.27 Bespoke pricing may also have the advantage over generic pricing in so far as it may help to ensure that some users may decide to continue using spectrum which, otherwise, at generic prices, they would have given up, rationally (in response to the price set) but inefficiently (in relation to the value they derive from the use).
- 1.28 We recognise that bespoke pricing may be more complex and costly to administer than generic pricing. We forecast that most of the additional costs will take the form of one-off up-front costs incurred in implementing the IS system needed to calculate bespoke fees. We estimate that the ongoing costs of generic and bespoke pricing will be similar as licence records would need to be maintained and invoices generated under either arrangement.
- 1.29 In the light of this analysis, we concluded that the cost of implementing and operating bespoke pricing for some licence classes is outweighed by the benefits in terms of more efficient use of scarce frequencies.

Impacts on different types of stakeholders

- 1.30 As set out in the December 2010 and June 2011 statements, we took care to review the distribution of financial impacts of the fee changes on different types of licensees. The impact of imposing AIP based licence fees for VHF on aviation users will fall on a wide variety of users. The impact on the industry as a whole will be an increase of about £3.5m per year at the end of the five years during which increases will be phased in. (The precise amount will depend on how licensees respond to pricing signals).
- 1.31 The largest individual financial impact falls on NATS En-Route plc (NERL) the regulated UK air navigation service provider. The total extra costs amount to 0.24% of NERL's regulated cost base. We understand that, although there may be intervening cash consequences, these costs are likely to be passed through to airlines under the next regulatory price review.
- 1.32 At the large airports where charges are regulated by the CAA, AIP charges are also unlikely to be able to be passed through in the short term so the airports affected will experience a cash impact in the relevant intervening periods before costs are potentially passed onto airlines. However, particularly in the light of our phasing decision, such cash impacts are likely to amount to only a fraction of a penny per passenger movement. The larger commercial competitive airports will also face AIP charges amounting to a relatively small proportion of their aeronautical revenue which (because the proposed licence fees are industry-wide) are likely to be passed on to users. Charges amount to no more than a few pence per passenger movement at such airports.
- 1.33 The impact on smaller airports becomes proportionately larger, although at typically around 6p per passenger, in the more extreme cases, these impacts are small both in absolute terms and relative to overall costs in the aviation value chain. Furthermore, phasing will mitigate significantly any specific transitional issues.
- 1.34 Other impacts fall on a wide range of different types of licensee including airlines, aeronautical clubs, flying schools, private individuals, oil companies operating offshore installations, and research establishments. In our analysis of impacts we assumed that the great majority of licensees holding Air/Ground and Aerodrome Flight Information Service assignments would opt to reduce their DOC (and therefore their spectrum holding) in order to attract a lower fee of £650. If in practice this fails to happen, we will consult with stakeholders on further transitional fees if less than half of these assignments have not reduced their DOC by May 2015.
- 1.35 The analysis showed that small aerodromes will typically see annual cost increases of 20p/movement or less (in this context, "movement" refers to a landing or take-off), assuming they are paying an annual fee of £2600.). We note that per movement charges are low when compared to the cost of renting and operating a small single engine craft. Furthermore, the same charges are very low when compared against the variable per hour operating cost of a business jet. Many small aerodromes could offset this increase by choosing to operate with a more localised DOC which will attract an annual fee of £650 instead of £2600.
- 1.36 We are phasing-in fee increases to mitigate the transitional financial impacts that specific licensees may experience. We concluded that we should implement a phasing scheme where fee increases are relatively small in the early years and proportionately greater in the later years. We concluded that this was appropriate because it will be in the early years that uncertainty about scope to respond in a

manner consistent with safe and efficient operation will be greatest. Our decision was intended to reduce the risk of inefficient responses to the new fees, including from the smaller organisations which are proportionately more affected.

Point to Point Fixed Links in 71.125 to 73.125 GHz and 81.125 to 83.125 GHz bands

- 1.37 In our 70/80 GHz Statement, we decided to change the way in which Fixed Links bands were managed in the 71.125 to 73.125 GHz and 81.125 to 83.125 GHz bands. We decided to change the authorisation regime from one of Self Co-ordination to Ofcom managed. This led to the creation of the 71.125 to 73.125 GHz and 81.125 to 83.125 GHz bands for Point to Point Fixed Links under an Ofcom Co-ordinated approach whilst the 73.375 to 75.875 GHz and 83.375 to 85.875 GHz bands would remain available under the Self Co-ordinated licence class.
- 1.38 A result of this decision was that the supply of spectrum in Self Co-ordinated bands has been reduced by our decision to introduce a mixed management approach in 71 to 76 GHz and 81 to 86 GHz (“70/80 GHz”) bands.
- 1.39 Through the consultation process we determined that the existing AIP Fixed Links fee rate was not the appropriate mechanism to charge for links for Point to Point Fixed Links in the 71.125 to 73.125 GHz and 81.125 to 83.125 GHz bands at this time. If we had applied the existing AIP Fixed Link fee rate this could have had an impact on the use of this band and deterred the deployment of new services. This would be inconsistent with our duties regarding the optimal and efficient use of spectrum.
- 1.40 In setting out our fee proposals we indicated that we viewed them as an interim measure as we are in the process of conducting a review of the fees for all spectrum that is managed by Ofcom for Fixed Links (including the 70/80 GHz bands). However, given the interest from stakeholders wanting to access the band we decided that we should go ahead with proposals in advance of the Fixed Links Fee Review.
- 1.41 Instead we decided that the charges for the (Ofcom Co-ordinated) Point to Point Fixed Links 71.125 to 73.125 GHz and 81.125 to 83.125 GHz bands should be based on a pragmatic approach for the interim period. We felt that it was not appropriate to extend our existing fees algorithm to determine the fee since direct linkage and extrapolation of the current AIP fees applicable for Point to Point Fixed Links in Ofcom managed spectrum would not result in a sensible fee structure for access to the 70/80 GHz bands.
- 1.42 We decided that the pragmatic approach would be to derive the interim fee based on the current fee rate for the average link value in the 38 GHz band. We considered that the 38 GHz band was a reasonable basis for deriving interim fees as this is the nearest band (in frequency terms) to the 70/80 GHz bands that is currently managed by Ofcom and is extensively used. We derived the proposed fee by:
- identifying the average link fee at 38 GHz;
 - applying the average 38 GHz link fee to a typical channel expected to be used for emerging uses in the 70/80 GHz bands (i.e.500 MHz);
 - pro-rating the resulting fee rate for a 500 MHz channel in the 70/80 GHz bands for other channel bandwidths; and

- setting a minimum fee by applying the pro-rated price (to the nearest £100) at 125 MHz to all channel sizes below 250 MHz.
- 1.43 We decided in the 70/80 GHz Statement that making the fee dependent on channel width was an important aspect of the as it would help to promote transmission efficiency; in particular, to encourage licensees to have an appropriate incentive to use smaller channel widths where these can meet their requirements (e.g. using equipment with higher order modulation).
- 1.44 However, we noted issues raised by stakeholders regarding the need for stability in our fees. Consequently the interim fees will apply for a period of 5 years from the date of publication of 70/80 GHz Statement irrespective of the wider review concluding that fee rates should be increased. However should the Fixed Link Fee Review result in a proposal to decrease fees, then we would plan to implement these new fee levels at the earliest opportunity. Given our intention to review the interim fee as part of the Fixed Links Fee Review, and for reasons set out in our 70/80 GHz Statement, we believe that our decision to apply the interim fee would not have a significant impact on stakeholders.
- 1.45 The Regulations implement a charge of £100 for each channel with a bandwidth of less than 250MHz and £225 for each 250MHz of bandwidth within a channel, where the channel has a bandwidth of 250MHz or more.

National DTT multiplex operators

- 1.46 A full analysis of the options for the proposed fees for DTT multiplex services, and their impact, was set out in section 3 of our Spectrum Pricing Consultation.
- 1.47 There are currently six national DTT multiplexes broadcasting in the UK. Three of these carry public service broadcasting (PSB) services which are available to around 98.5% of the population and are operated by the BBC (2 multiplexes) and Digital 3&4 (which carries ITV, C4 and C5 channels). The remaining three multiplexes provide around 90% UK-population coverage and are commercially operated by SDN Limited and Arqiva (2 multiplexes).
- 1.48 We applied our proposed cost allocation methodology and identified spectrum management costs for all six national DTT multiplex operators totalling £1.13m in 2011/12.
- 1.49 To test the robustness of our 2011/12 analysis, we analysed the costs of our spectrum policy programmatic and project work over a three year period (2010/11 to 2012/13), as this is the category most subject to fluctuation. While some variation in effort was identified, the average cost over the three years was comparable to our 2011/12 figure.
- 1.50 We did not find any justification for an adjustment to fees which fully reflect our spectrum management costs. We took this view for the following reasons:
- Licensees (and other broadcasters hosted on multiplexes, who we expect licence fees will pass through to) have been on notice since 2006 that fees will be introduced in 2014 so have had ample opportunity to plan for their introduction.
 - Spectrum fees were previously imposed on the majority of these operators for analogue transmissions (we note that the scale of those analogue spectrum fees were significantly higher than those we have introduced in the Regulations and

decreased throughout the digital switchover (DSO). Further, the introduced fee is likely to be comparatively low relative to the other costs incurred by a multiplex operator)¹⁵. In light of this, and the fact that licensees have been on notice, we do not anticipate any significant risks to the delivery of the benefits of use.

- We have not identified any considerations relevant to our wider duties which justify an adjustment of the level of fees levied on national DTT multiplex operators.
 - We are not aware of any particular group of citizens or consumers who would be unfairly and adversely affected by fee levels that reflected our costs, as per our equality impact assessment.
- 1.51 On this basis, we did not identify any reason for providing a concession to national DTT multiplex licensees. Furthermore, we did not identify any need to phase in the introduction of fees given licensees have been aware that fees will be introduced in 2014 since 2006.
- 1.52 Accordingly, we decided to introduce fees that fully reflect our spectrum management costs from 2014. However, we note that our standard payment terms would allow these licensees to spread the cost of payments over 10 instalments.
- 1.53 We did not differentiate between national multiplexes with regards to setting fees. This is because our spectrum management costs are broadly similar regardless of whether it is a PSB or commercial multiplex. The spectrum management work we undertake typically relates to the DTT platform as a whole rather than to individual multiplexes. We decided to set the fees for each national multiplex at a level which reflects our spectrum management costs in full, at the full unit cost. The unit cost for national DTT multiplexes is based on the number of licences issued. This has been generated by dividing total spectrum management costs for DTT multiplexes by six for each of the national DTT multiplexes.
- 1.54 The Regulations therefore introduce new WT Act fees of £188,000 per annum per national DTT multiplex.

Local TV DTT multiplex operator

- 1.55 Local TV broadcasting and licensing policy was still in development during 2011/12. In light of this, we were not able to use 2011/12 spectrum management costs, as these were not representative to base proposed fees for the local TV multiplex.
- 1.56 As a result, we classified costs using a bottom-up approach, based on the forecast number of spectrum management fulltime equivalents (FTEs) we expected would be required to manage local TV on an on-going basis. We extrapolated other costs from the national DTT multiplex costs for 2011/12 based on this forecast number of FTEs. Spectrum engineering and enforcement (SE&E) costs (involving WT Act licensing, the investigation of harmful interference and undertaking enforcement action) are calculated as a proportion of national DTT SE&E costs based on the ratio of national DTT main transmitter sites¹⁶ from which local TV will broadcast (currently around

¹⁵ There are a range of significant costs associated with running a DTT multiplex (such as network access and transmission fees). See for example, the existing Arqiva reference offer <http://www.arqiva.com/documentation/reference-offers/index.html>

¹⁶ We adopted this approach because our interference role for broadcasting differs in comparison to other sectors. This is because the BBC has a duty to investigate complaints of interference to

25% of transmitters). As a secondary user of spectrum, we recognised that international spectrum costs were unlikely to be relevant for local TV so none of the associated costs are apportioned to local TV.

- 1.57 By applying our proposed cost allocation methodology, we identified spectrum management costs for the local TV DTT multiplex of £23,900 in 2011/12.
- 1.58 We then considered how our spectrum management costs for the local TV DTT multiplex have been formulated in comparison to other sectors under the cost allocation methodology. We sought to extrapolate costs as accurately as possible based on our understanding of the spectrum management needs of the sector, and we will review this fee if we consider there is a significant misalignment with costs in the future. However, we determined that we would be unable to verify this until the service has been operational for at least one full financial year.
- 1.59 We also noted that the Government made clear its objective to create and support a new tier of local television services in the UK. It laid statutory instruments before Parliament and directed Ofcom to reserve spectrum in pursuit of this objective. The licensing framework for local TV is now in place with the first services becoming operational in 2013. It was evident from these developments that the Government's support for local TV would continue after the multiplex had been launched.
- 1.60 Therefore while our underlying rationale to introduce cost based spectrum fees remains pertinent (and applicable) to the local TV DTT multiplex, we also wanted to ensure that these wider Government objectives were not at risk of being unduly undermined by our proposed fees. As a result, we considered whether an adjustment to the proposed spectrum fee might be justified in light of this policy context, and determined this not to be the case for the following reasons:
- Part of the Government's rationale for intervention in the provision of local TV was the compelling evidence of relevant market failures acting as a barrier for local TV business models to develop in the existing media market. DCMS concluded that there was a need to address the identified barriers if the development of sustainable local TV was to occur¹⁷. To this end, a range of measures have already been put into place by DCMS, Ofcom and the BBC to support local TV¹⁸.
 - We did not believe that our proposed fee would undermine the Government's objectives for local TV, and therefore we did not consider that a long term reduction in the spectrum fee from a level which fully reflects our spectrum management costs is necessary or justified on the basis of the Government's wider policy. We noted that the proposed fee was likely to be relatively low compared to the other costs incurred by a multiplex operator¹⁹.

domestic television and radio reception and our involvement is typically limited to cases where interference concerns are escalated.

¹⁷ See, for example, *A new framework for local TV in the UK*, July 2011, DCMS.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/72920/Local-TV-Framework_July2011.pdf

¹⁸ This includes funding of up to £40m which the BBC will make available to support the development of the multiplex and support new local news content

http://downloads.bbc.co.uk/bbctrust/assets/files/pdf/our_work/local_television/funding_arrangements.pdf.

¹⁹ As with the national DTT multiplex operators, there are a range of significant costs associated with running a local TV multiplex. See, for example <http://www.arqiva.com/documentation/reference->

- We had not identified any considerations relevant to our wider duties which justify an adjustment of the level of fees levied on the local TV DTT multiplex operator, nor were we aware of any particular group of citizens or consumers who would be unfairly and adversely affected by fee levels that reflected our costs, as per our equality impact assessment.
- 1.61 In addition, we recognised that local TV services are new and the licence had only recently been awarded to Comux UK (the licence did not formally commence until November 2013). Introducing fees in this context could risk unduly undermining these wider policy objectives in the short term. In particular, we note that some of Comux UK's services will have only recently launched operation at the point at which fees were introduced.
- 1.62 We considered it appropriate to allow Comux UK a period of adjustment. We decided to phase in the introduction of fees during an initial two year period as local TV services rollout, starting in 2014. We consider this is a sufficient period to manage the risk identified.
- 1.63 We decided to set the fee for the local TV multiplex at a level which (we estimate) reflects our spectrum management costs in full (and at the full unit cost). However, we would phase in the introduction of the fee in recognition of the recent award of the licence and future rollout of services.
- 1.64 The cost based fee will be £23,900 pa, though we intend to set it at a contribution to our costs (50%) for the first two years (in 2014 and 2015 the fee will be £11,950 pa). The full fee of £23,900 pa will apply from 2016.
- 1.65 Therefore the Regulations introduce new WT Act fees of £11,950 per annum for the local TV DTT multiplex.

Northern Ireland DTT multiplex

- 1.66 As is the case with local TV, broadcasting and licensing, policy for the Northern Ireland DTT multiplex was also being developed during 2011/12. As such, we lack a baseline for attributable costs relating to the Northern Ireland multiplex.
- 1.67 Consequently, we adopted a similar bottom-up approach to developing fees for this multiplex. This was based on the forecast number of spectrum management FTEs we expected would be required to manage the Northern Ireland multiplex on an on-going basis, and extrapolated other costs from the national DTT multiplex costs for 2011/12 based on this forecast number of FTEs. SE&E costs reflected the one main transmitter used by the multiplex and therefore the much lower number of interference cases handled. As a secondary user of spectrum, we recognised that international spectrum costs were likely to be small and largely incremental for this multiplex so none of the associated costs were included.
- 1.68 By applying our proposed cost allocation methodology, we identified spectrum management costs for the Northern Ireland DTT multiplex of £3,360 in 2011/12.
- 1.69 As noted above with the local TV DTT multiplex, we were mindful of how our spectrum management costs for the Northern Ireland multiplex had been formulated in comparison to other sectors under the cost allocation methodology. We sought to

extrapolate costs as accurately as possible based on our understanding of the spectrum management needs of the sector, and we would review this fee if we consider there is a significant misalignment with costs in the future. However, we would be unable to verify this until after the sector had been operational for at least one full financial year.

1.70 We have considered the policy and sectorial considerations set out in section 3 of our Spectrum Pricing Consultation in relation to the Northern Ireland DTT multiplex. We did not consider that these considerations were of particular relevance to this licence class such that they should justify an adjustment to fees which fully reflect our spectrum management costs for the following reasons:

- The Northern Ireland DTT multiplex was established as part of the agreements between the UK and Irish Governments to promote cross-border television²⁰. Although spectrum fees had not previously been levied on the Northern Ireland DTT multiplex, DCMS advised us that any spectrum management fees should fall to DCMS (rather than the multiplex operator) under the terms of the agreements.
- We did not consider that the UK Government's financial support of the Northern Ireland DTT multiplex, or any of our other policy or sectorial considerations, would justify an adjustment to the level of fees levied on the Northern Ireland DTT multiplex. In particular, we did not consider that a fee which fully reflects our spectrum management costs would risk the delivery of wider policy objectives.
- We were not aware of any particular group of citizens or consumers who would be unfairly and adversely affected by fee levels that reflected our spectrum management costs, as per our equality impact assessment.
- We did not identify any basis for providing a concession for this licence fee, nor did we consider it necessary to phase in the introduction of fees.

1.71 Therefore, we decided to introduce new WT Act fees of £3,360 per annum for the Northern Ireland DTT multiplex.

Public Wireless Networks for Jersey, Guernsey and the Isle of Man

1.72 The Regulations have been updated to reflect the way in which spectrum use is liberalised in the Channel Islands and Isle of Man aligning it with spectrum liberalisation policy and practice across the EU and, in particular, within the UK²¹.

1.73 This is in line with the Communications Commission's (the "Commission") decision in the Isle of Man. The Commission confirmed in its September 2013 Statement that 4G licences will not be technology-specific. All current 2G and 3G spectrum bands would be liberalised at the same time as the 4G spectrum is awarded. We are aware that CICRA has similarly consulted on the licence liberalisation for Jersey and Guernsey. Irrespective of the outcome of the CICRA Consultation, the Regulations aim to facilitate licensing of 4G in the Channel Islands after their award process concludes.

²⁰ http://webarchive.nationalarchives.gov.uk/20101117105445/http://www.digitaltelevision.gov.uk/publications/pub_UK-ROI-MOU.html

²¹ Ofcom consulted on liberalising some spectrum bands in the UK ; *Variation of 900 MHz, 1800 MHz and 2100 MHz Mobile Licences*: <http://stakeholders.ofcom.org.uk/binaries/consultations/variation-900-1800-2100/summary/condoc.pdf> and; *Statement on the Requests for Variation of 900 MHz, 1800 MHz and 2100 MHz Mobile Licences*: <http://stakeholders.ofcom.org.uk/binaries/consultations/variation-900-1800-2100/statement/statement.pdf>

- 1.74 This will benefit mobile operators by giving them the flexibility to make their own operational choices regarding which services to provide in which bands.

Cost to Ofcom

- 1.75 There are one-off administrative costs associated with making a Statutory Instrument. We consider the implementation costs to be low and offset by the benefits. There may be a slight reduction in spectrum management costs in certain areas.
- 1.76 As previously explained in the preceding paragraphs, the most efficient route to compliance with our statutory obligations is to make the Regulations.

Do Nothing

- 1.77 The main alternative amongst the specific options open to us would be to do nothing. By doing nothing, we mean not making the Regulations and maintaining the fees in the 2011 Regulations as amended for all relevant licence classes. This would mean that we would not be implementing policy changes that Ofcom had previously consulted and decided upon and in relation to which we had published statements.

Aeronautical licence classes

- 1.78 If we do not adopt new fees regulations, the sector would not be subject to an overall increase of around £3.5m in licence charges (based on the full rate of AIP applicable after 5 years). A significant proportion of the increase would fall on NATS En-Route plc (NERL), the regulated UK air navigation service provider.²²
- 1.79 There is excess demand from within the aeronautical sector. It is often very difficult to meet new requests for aeronautical VHF communications frequencies required by aerodromes and air traffic controllers. Failure to implement the Regulations would mean that the issue of spectrum scarcity continues to not be addressed.
- 1.80 The decision Ofcom made to adopt AIP for certain classes of Aeronautical licence is consistent with Ofcom's duties under sections 3 of the 2003 and WT Acts. Not giving effect to that decision by adopting the Regulations risks continued inefficient use of spectrum that would be inconsistent with our duties as set out in sections 3 of those Acts.

Point to Point Fixed Links in 71.125 to 73.125 GHz and 81.125 to 83.125 GHz bands

- 1.81 Without the Regulations the fees for fixed links in the Ofcom co-ordinated bands, 71.125 to 73.125 GHz and 81.125 to 83.125 GHz, would need to continue to be applied under Regulation 6 of the 2011 Regulations²³ leading to a lack of consistency in presentation of the fees payable for the Ofcom Fixed Link Co-ordinated licence product
- 1.82 Not including the fees in the Regulations would risk inefficient use of the spectrum. Some mobile network operators and their equipment suppliers reported that the current self co-ordinated management regime for these bands does not provide them with the level of confidence and protection that they believe is required for high availability applications. They felt that operator-led co-ordination in shared bands

²² This additional cost may be passed onto airlines under the next regulatory price review.

²³ <http://www.legislation.gov.uk/ukxi/2011/1128/made/data.pdf>

could lead to extended dispute resolution discussions. On this basis, some argued that Ofcom should more actively manage these bands. Given that the bands have been identified as playing a key role in providing high capacity backhaul required for 4G mobile, it is important that this resource is managed to ensure maximum benefit to citizens and consumers. We felt, therefore, that it was appropriate to charge the interim AIP fee.

- 1.83 The fees will be subject to the forthcoming Fixed Link Fees Review; however, failure to implement it denies licensees the certainty attached to our decision to cap the fees for a period of 5 years following the publication of the 70/80 GHz Statement.

DTT broadcasting licences

- 1.84 National DTT multiplexes have been broadcasting for well over a decade but no spectrum fees for the WT Act licences held by these licensees are currently charged. As for local TV DTT multiplexes, these are relatively new services, part of which were launched last year, but are yet to be charged. Similarly, spectrum fees have not previously been levied on the Northern Ireland DTT multiplex. Therefore, by doing nothing, no spectrum fees for the WT Act licences held by any of these licensees will be charged.
- 1.85 Not including the DTT broadcasting fees in the Regulations would risk inefficient use of spectrum that would be inconsistent with our duties as set out in the 2003 and WT Acts. The fees are set at a level which reflects the costs Ofcom incurs in connection with our radio spectrum functions. Not recovering the appropriate level of cost from this sector could lead to higher costs in other areas.

Public Wireless Networks for Jersey, Guernsey and the Isle of Man

- 1.86 By doing nothing, 2G and 3G licences for the Isle of Man and Channel Islands will not be liberalised and their existing Public Wireless Networks licences will remain unchanged with technology restrictions. Ofcom will also need to operate new licence products to accommodate the new 4G licences for the Isle of Man and Channel Islands.

The preferred option

- 1.87 In order to continue to meet our spectrum management duties, and in light of the assessments referred to above, our preferred approach is to implement the Regulations.
- 1.88 Although they are difficult to quantify, we believe, for the reasons set out in more detail in the assessments referred to above, that these benefits are likely to exceed the costs to stakeholders of the increases in fees that will apply in some cases. Moreover, if we did not update our spectrum fees – for example, to reflect the value of the spectrum in appropriate cases, and reduce charges to reflect administrative costs in others - it might harm the efficient use of spectrum. We would not be acting consistently with our wider spectrum management duties, which would have repercussions in terms of economic efficiency.
- 1.89 For the reasons identified in the preceding paragraphs we consider the benefits of making the Regulations outweigh the costs. We have therefore decided to make the Wireless Telegraphy (Licence Charges) (Amendment) Regulations 2014.

Equality Impact Assessment

- 1.90 Following an initial assessment of our policy proposals we consider that it is reasonable to assume that any impacts on consumers and citizens arising from the Regulations would not differ significantly between groups or classes of UK consumers and citizens, all of whom would have access to these services, potentially at end-user prices reflective of all general input costs, including opportunity costs of spectrum used.
- 1.91 In addition, we note that there is no available evidence to suggest the decision to apply the further phases of AIP charging would have a significantly greater direct financial impact on groups including based on gender, race or disability or for consumers in Northern Ireland relative to consumers in general. We do not consider that there is evidence to suggest that costs imposed on operators, would differ significantly by these aforementioned groups of consumers and citizens relative to consumers in general. This is because one would not expect the impact of supplying these consumers and citizens to differ significantly between these groups and consumers in general. Nor would cost reflective end-user prices therefore be expected to impact significantly differently on these groups as a result of charging for WT Act licences.
- 1.92 We have not carried out a full Equality Impact Assessment in relation to race equality or equality schemes under the Northern Ireland and disability equality schemes at this stage. This is because we are not aware that our decision is intended (or would, in practice) have a significant differential impact on different gender or racial groups, on consumers in Northern Ireland or on disabled consumers compared to consumers in general.

Declaration

I have read the Regulatory Impact Assessment and I am satisfied that the benefits justify the costs.

Signed

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21 May 2014

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