

Broadcasting Transmission Services: a review of the market

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Statement
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About this document

In 2005 we concluded a review of the market for broadcasting transmission services. As a result of this review, we found that Crown Castle and ntl:broadcast, which both now form part of Arqiva, had significant market power in the market for the provision of access to masts and sites and shared or shareable antenna systems.

Regulatory conditions were imposed as a result of the 2005 review, which remain in force today. Since that review, Arqiva became subject to various remedies under the UK merger control regime, which effectively incorporate the regulation imposed in 2005.

In March 2016 we published a consultation setting out our proposals, in light of the merger obligations, to remove the significant market power regulation on Arqiva in the broadcasting transmission services market.

The purpose of this document is to set out our final position on the broadcasting transmission services market.

This draft statement, which explains our decisions in relation to the broadcasting transmission services market, is today being notified to the European Commission. Once this notification process is complete, we will publish a final statement to bring our final decisions into effect.

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Section 1

Executive Summary

- 1.1 In 2005, we imposed a number of regulatory conditions on Crown Castle UK Limited and National Transcommunications Limited, which remain in force today. This followed the conclusion of our review of the broadcasting transmission services market under the framework harmonised across the European Union for the regulation of electronic communications by the Member States.
- 1.2 In 2007, Macquarie Bank (which had acquired National Transcommunications Limited) acquired National Grid Wireless (created through the merger of Crown Castle UK Limited with Gridcom) to form a single company branded as Arqiva. The acquisition was referred for investigation to the former Competition Commission, which found that it may be expected to lead to a substantial lessening of competition.
- 1.3 The Competition Commission cleared the acquisition in 2008 subject to the agreement of a package of behavioural undertakings, as administered by the broadcast transmission services Adjudicator, which were designed to address the significant lessening of competition that would result from the acquisition. These undertakings impose obligations that effectively incorporate the regulatory conditions we imposed on Arqiva in 2005.
- 1.4 We have now carried out a review of the broadcasting transmission services market, following our commitment to do so in our Annual Plan 2015/16. We conclude that there are two markets for broadcasting transmission services: the provision of network access for digital terrestrial television broadcasters and the provision of network access for analogue and digital radio broadcasters.
- 1.5 We determine that these markets are susceptible to *ex ante* regulation, as they display the following characteristics: (i) high and non-transitory barriers to entry; (ii) a market structure that does not tend towards effective competition within the relevant time horizon; and (iii) the potential for market failures which *ex post* competition law alone would be inadequate to address.
- 1.6 Notwithstanding Arqiva's strong market position, we have concluded that in light of the regulatory obligations imposed by the merger undertakings that were accepted by the Competition Commission, Arqiva does not have significant market power in either of the relevant markets. We will therefore remove the regulatory conditions that we imposed in 2005. However, our conclusion that Arqiva does not have SMP is conditional on the continued presence and effectiveness of the merger undertakings.
- 1.7 Our engagement with stakeholders in the course of this review has highlighted a number of perceived concerns, given Arqiva's position in the relevant markets. We consider that the regulatory regime established by the merger undertakings is sufficiently flexible to respond to changes in the market and customer requirements, and as such is capable of addressing these concerns. In particular, it is designed to: provide certainty and transparency for customers; encourage commercial negotiation of contracts; and resolve disputes in a flexible and timely manner where commercial negotiation fails.
- 1.8 Should there be any significant changes to the broadcasting transmission services market in the future, in particular the removal or significant alteration of the merger undertakings, we retain the ability to open a fresh review into this market at any time.

Section 2

Introduction

Ofcom 2005 review of Broadcasting Transmission Services

- 2.1 In April 2005 Ofcom carried out an analysis of the broadcasting transmission services (“**BTS**”) market in the UK.¹ BTS are used to deliver broadcasting content to retail end-users (television viewers and radio listeners). Our BTS statement (the “**2005 Statement**”) identified the following wholesale markets:²
- the market for the provision of access to the mast and site network and shared or shareable antenna systems acquired, constructed or installed by Crown Castle UK Limited (“**Crown Castle**”) for the purpose of providing analogue and/or digital terrestrial broadcasting transmission services within the UK, to deliver broadcast content to end-users on a national, regional or metropolitan basis;
 - the market for the provision of access to the mast and site network and shared or shareable antenna systems acquired, constructed or installed by National Transcommunications Limited (“**ntl:broadcast**”) for the purpose of providing analogue and/or digital terrestrial broadcasting transmission services within the UK, to deliver broadcast content to end-users on a national, regional or metropolitan basis; and
 - the market for the provision of access to other masts, sites and shared or shareable antenna systems used for the purpose of providing analogue and/or digital terrestrial broadcasting transmission services within the UK, to deliver broadcast content to end-users.
- 2.2 We concluded that Crown Castle and ntl:broadcast each had significant market power (“**SMP**”) in the market for access to their respective masts, sites and shared or shareable antenna for the purpose of analogue and digital terrestrial broadcasting transmission services within the UK, to deliver broadcast content to end-users on a national, regional or metropolitan basis.
- 2.3 We found that no supplier had SMP in the market for provision of access to other masts, sites and shared or shareable antenna systems used for the purpose of providing analogue and/or digital terrestrial broadcasting transmission services within the UK, to deliver broadcast content to end-users.
- 2.4 Given the positions of SMP held by Crown Castle and ntl:broadcast, we decided to require that both companies:

¹ BTS were included in the European Commission’s Recommendation of 11 February, 2003 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services (the “**2003 Recommendation**”) as a market which may be susceptible to *ex ante* regulation (formerly listed as Market 18). The 2003 recommendation has since been amended such that BTS are no longer included in the list of markets that may be susceptible to *ex ante* regulation.

² Ofcom, [2005 Statement](#).

- provide network access (“**NA**”) to their respective masts and sites and on reasonable request;
- do not unduly discriminate in providing NA;
- provide NA to their respective masts and sites on cost-orientated terms; and
- publish a reference offer setting out the terms on which access to the mast and sites will be made available.

2.5 Around the time of the 2005 Statement, Crown Castle was acquired by National Grid Transco which merged the business with its existing wireless infrastructure business, Gridcom, and subsequently renamed the business National Grid Wireless (“**NGW**”); and ntl:broadcast was acquired by Macquarie UK Broadcast Ventures Limited (“**Macquarie**”), a subsidiary of the Australian investment house Macquarie Bank, and rebranded as Arqiva.

Acquisition by Macquarie of NGW

- 2.6 In April 2007, Macquarie acquired NGW and the then Office of Fair Trading (“**OFT**”) referred the acquisition to the former Competition Commission (“**CC**”) in August 2007, pursuant to section 22(1) of the Enterprise Act 2002 (the “**EA02**”).³
- 2.7 The CC published its merger report in March 2008 and found that the acquisition, by combining the only two UK integrated terrestrial broadcast transmission companies, would lead to a substantial lessening of competition in the provision of BTS to television and radio broadcasters. It considered that this could lead to higher prices and lower service quality.⁴ However, the CC cleared the completed acquisition, subject to the agreement of a package of behavioural undertakings, as administered by the Office of the Adjudicator, BTS, which addressed the significant lessening of competition identified. The final undertakings (the “**Undertakings**”) were agreed by the CC in September 2008 and remain in force today.
- 2.8 The Undertakings co-exist with, and impose obligations that effectively incorporate the 2005 SMP conditions.

Terrestrial transmission services in the UK

- 2.9 As part of this market review, in the context of determining whether *ex ante* regulation continues to be required, it is appropriate to discuss the nature of terrestrial transmission services in the UK.

Digital terrestrial television

- 2.10 In the UK, analogue terrestrial television has been replaced entirely by digital terrestrial television (“**DTT**”). The platform currently comprises eight national DTT multiplexes, and a local TV multiplex operating in certain areas of the UK. Each multiplex operator is licensed by Ofcom and, in general, the multiplex operator decides which channels it will carry.

³ On 1 April 2014 the OFT and CC were abolished and their functions were transferred to the Competition and Markets Authority (“**CMA**”).

⁴ CC, [Macquarie / NGW final report: 2008](#).

- 2.11 There are three public service broadcaster ("**PSB**") multiplexes, which are available from all 1156 DTT transmitting stations within the UK, the Channel Islands and the Isle of Man:
- PSB1 (BBCA), operated by the BBC;
 - PSB2 (D34), operated by ITV plc and Channel 4 as Digital 3 and 4; and
 - PSB3 (BBCB), operated by the BBC.
- 2.12 There are also five 'commercial' multiplexes, which are transmitted from between 30 and 80 of the UK's larger DTT transmitter sites:
- COM4 (SDN), operated by ITV plc;
 - COM5 (ARQ A), operated by Arqiva;
 - COM6 (ARQ B), operated by Arqiva;
 - COM7, operated by Arqiva; and
 - COM8, operated by Arqiva.
- 2.13 The PSB multiplexes each provide coverage to at least 98.5% of UK households, while COM 4, COM 5 and COM 6 cover approximately 90% of households. The COM7 and COM8 multiplexes each reach approximately 76% of households.
- 2.14 A separate local TV multiplex, operated by Comux UK Ltd, provides local TV services in a number of UK towns and cities. At present the local TV multiplex is available in 20 towns and cities across the UK.
- 2.15 The main elements of the broadcasting supply chain for DTT are:
- content (broadcast channels) – the provision of programmes and other content for each channel;
 - contribution (also known as playout) and multiplexing – the transfer of the content channels to a multiplexing centre and blending them into a single digital signal;
 - distribution – sending the multiplexed DTT signal to each of the main transmission sites;
 - managed transmission services ("**MTS**") – services including network design, procurement and installation of transmitters, network monitoring, quality assurance of the signal and maintenance of the transmission equipment; and
 - network access ("**NA**"), which covers access to sites and associated facilities to enable broadcast transmission.
- 2.16 Since the acquisition of NGW by Macquarie, Arqiva has been the sole provider of MTS and NA in the UK for DTT.

Analogue and digital radio

- 2.17 Analogue radio has been broadcast in the UK since 1922 and is transmitted in AM and FM formats. AM radio (which broadcasts on Low Frequency [LF] and Medium Frequency [MF]) was introduced to the UK by the BBC, which remained the only UK-licensed radio broadcaster until 1973, when independent commercial radio commenced. FM (broadcasting on the Very High Frequency [VHF] band) was introduced in the mid-1950s and enabled a rapid increase in the number of radio services available from the 1970s onwards. Over the years the majority of analogue radio listening has moved from AM to FM, which delivers improved quality and reduced interference.
- 2.18 FM stations are in many cases transmitted from the large transmitter masts which also carry DTT services. However, because the VHF frequency band used for FM radio has different signal propagation characteristics to the higher frequency band used for DTT, some FM transmitter sites carry only radio services. Furthermore, local and community radio stations have smaller service areas to the national and regional DTT networks so require different transmission arrangements. AM broadcast antennas differ from FM and television antennas as the entire mast is usually 'live' (i.e. the mast structure itself radiates the radio signals). This can cause difficulties in using the same mast for anything other than AM broadcasts. A high proportion of AM and FM sites are owned and operated by Arqiva.
- 2.19 Digital radio, known as Digital Audio Broadcasting ("**DAB**") was first broadcast in the UK in 1995. There are three national DAB multiplexes in the UK. The first of these is operated by the BBC, and carries the BBC's national digital radio stations. The BBC's national DAB services are currently transmitted from 390 sites, the BBC's network is currently being expanded and is expected to reach 97% coverage of the UK. The second national DAB multiplex is operated by Digital One (owned by Arqiva), and broadcasts from 173 sites providing coverage to approximately 91% of UK households.⁵ A third national DAB multiplex, operated by Sound Digital Limited (a joint venture between Arqiva, Bauer, and the Wireless Group) was launched in February 2016. The Sound Digital multiplex is currently transmitted from 45 transmitter sites and covers approximately 75% of the UK population.
- 2.20 There are, additionally, 58 local commercial DAB licensees, and local DAB services are currently broadcast from approximately 330 sites.⁶ Following the signature of a Framework Agreement on Local DAB expansion by DCMS in early 2015,⁷ the local DAB licensees are in the process of adding transmitters to their networks in most parts of the UK. We expect that by the end of 2016 over 90% of households will be covered by a local DAB multiplex.
- 2.21 The respective supply chains for analogue and digital radio broadcasting are substantially the same as for DTT.⁸

⁵ Ofcom, [Communications Market Report 2016](#), page 11. The BBC and Digital One are in the process of adding transmitters to their networks during 2016. The figures for the number of sites are correct as of August 2016.

⁶ As of August 2016.

⁷ [Framework agreement on local DAB expansion](#).

⁸ However, for analogue radio there is no multiplexing stage and, unlike in the case of television, radio broadcasters are not typically obliged to transmit from specific sites (although in practical terms there is no choice for high power national radio services other than to use the tall Arqiva structures).

- 2.22 Arqiva has said that it owns more than 90% of the radio transmission towers for terrestrial broadcasting in the UK.⁹

Legal framework

Market reviews

- 2.23 In carrying out market reviews, we act in our capacity as the sector-specific regulator for the UK communications industries, particularly relating to our role as the national regulatory authority for electronic communications. Our functions in this regard are to be found in Part 2 of the Communications Act 2003 (**“the 2003 Act”**). We exercise those functions within the framework harmonised across the European Union for the regulation of electronic communications by the Member States (known as the Common Regulatory Framework or the **“CRF”**), as transposed by the 2003 Act. The applicable rules¹⁰ are contained in a package of five EC Directives, of which two Directives are immediately relevant for present purposes, namely:
- Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services; and
 - Directive 2002/19/EC on access to, and interconnection of, electronic communications networks and associated facilities.
- 2.24 The Directives require that NRAs (such as Ofcom) carry out reviews of competition in communications markets to consider whether SMP regulation is appropriate and proportionate, or where existing regulation is imposed to ensure that SMP regulation remains appropriate and proportionate in light of changing market conditions.
- 2.25 Each market review normally involves three analytical stages, namely:
- the identification and definition of the relevant markets (the market definition procedure);
 - the assessment of competition in each market, in particular whether the relevant market is effectively competitive (the market analysis procedure); and
 - the assessment of appropriate regulatory obligations (the remedies procedure).
- 2.26 These stages are normally carried out together.
- 2.27 When we last reviewed the BTS market, this was included in the 2003 Recommendation as a market which may be susceptible to ex ante regulation (formerly listed as Market 18). However, in 2007, the European Commission revised its Recommendation on relevant product and service markets (the **“2007 Recommendation”**).¹¹ The Commission concluded that, on an EU wide basis, BTS

⁹ [Arqiva Financial Report, Year ended 30 June 2015](#), page 5.

¹⁰ The Directives were subsequently amended on 19 December 2009. The amendments have been transposed into the national legislation and applied with effect from 26 May 2011 and any references in this statement to the 2003 Act should be read accordingly.

¹¹ EU Commission Recommendation of 17 December 2007 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and the Council of 7 March 2002 on a common

are no longer considered to have characteristics that make them susceptible to *ex ante* regulation.

- 2.28 In its Explanatory Note to the 2007 Recommendation (“**the 2007 Explanatory Note**”) the Commission expressed its view that the move from analogue to digital transmission should result in fewer capacity constraints and more platforms to compete with, while remaining problems of market power could be addressed by *ex post* application of competition law or by other regulatory measures that may be in place:¹²

“There are a number of reasons why it is considered appropriate to remove the existing wholesale market from the recommended list. Many of the comments received during the consultation indicated that significant market changes are underway. There is evidence of greater platform competition as the transition from analogue to digital delivery platforms occurs. One implication is that there are likely to be fewer capacity constraints on any given platform. A second is that many Member States are likely to have 3-4 competing platforms (terrestrial, satellite, cable and telecom-based) in contrast to 2-3 analogue platforms, one of which, satellite, developed much later. The transition from analogue to digital provides an impetus for platforms to compete and attract end-users, which in a two-sided market context, also means obtaining content. These changes indicate that despite the market entry barriers that may exist, the market dynamics are such that the second criterion is not satisfied.

In addition, it is necessary to consider whether potential market power problems can be addressed either by competition law (the third criterion) or indeed by other regulatory measures that are in place, in line with the principle of taking a modified greenfield approach.

Must-carry rules can be imposed under Article 31 of the Universal Service Directive (USD). Member States can impose must-carry obligations when a significant number of end users use a network as their principal means of receiving radio and television broadcasts. The approach to must-carry differs across the Community, and in some cases channels designated as must-carry have taken up a significant proportion of the available channels. However, the principle remains that perceived problems of access to transmission platforms for specified channels and services can be addressed via Article 31 USD where they meet a general interest objective.

Furthermore, according to Article 12 of the Framework Directive, where undertakings are deprived of access to viable alternatives because of the need to protect the environment, public health or public security or to meet town and country planning objectives, Member States may impose the sharing of facilities or property

regulatory framework for electronic communications networks and services (second edition): <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:344:0065:0069:en:PDF>.

¹² Commission Staff Working Document, Explanatory Note, Accompanying document to the Recommendation, SEC (2007) 1483, dated 13/11/2007: https://ec.europa.eu/digital-agenda/sites/digital-agenda/files/sec_2007_1483_2_0.pdf.

(including physical co-location) on an undertaking operating an electronic communications network. Such sharing or coordination arrangements may include rules for apportioning the costs of facility or property sharing.

In addition, national competition authorities have dealt with certain access problems under competition rules.

Conclusion

On the basis that the wholesale market for broadcasting transmission services to deliver broadcast content to end-users is not deemed to meet the second criterion in a majority of Member States, and on the basis that access problems related to public interest objectives can be addressed under must-carry provisions, the market is withdrawn from the recommended list.”

- 2.29 On 9 October 2014, the European Commission adopted a revised Recommendation on relevant product and service markets within the electronic communications sector that are susceptible to *ex ante* regulation (the “**2014 Recommendation**”).¹³ The 2014 Recommendation continued to consider that BTS do not have characteristics that make them susceptible to *ex ante* regulation. It also published an Explanatory Note to accompany the 2014 Recommendation (“the 2014 Explanatory Note”).¹⁴

Three criteria test

- 2.30 The 2014 Recommendation (and previous iterations) identifies markets within the electronic communications sector the characteristics of which may be such as to justify the imposition of regulatory obligations. Such markets are identified by reference to the following three cumulative criteria (the “**three criteria test**”):
- The presence of high and non-transitory barriers to entry. These may be of a structural, legal or regulatory nature.
 - A market structure that does not tend towards effective competition within the relevant time horizon. The application of this criterion involves examining the state of competition behind the barriers to entry.
 - The insufficiency of *ex post* competition law alone to adequately address the market failure(s) concerned.
- 2.31 The 2014 Recommendation also provides that national regulatory authorities (“**NRAs**”) may identify other markets by reference to the three criteria test.

¹³ EU Commission Recommendation of 9 October 2014 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L:2014:295:FULL&from=EN>.

¹⁴ Commission Staff Working Document, Explanatory Note, Accompanying document to the Recommendation, SWD (2014) 298, dated 9/10/2014: <https://ec.europa.eu/digital-agenda/en/news/commission-recommendation-relevant-product-and-service-markets-within-electronic-communications>.

- 2.32 The 2014 Recommendation further provides that NRAs should apply the three criteria test to those markets listed in the 2003 Recommendation and the 2007 Recommendation if they are currently regulated in light of national circumstances, in order to assess whether, on the basis of such national circumstances, such markets are still susceptible to *ex ante* regulation.¹⁵
- 2.33 Given that BTS are currently regulated by Ofcom, before reviewing the market, it is necessary to apply the three criteria to determine whether it is still susceptible to *ex ante* regulation in light of national circumstances in the UK. If these criteria are not satisfied, it is not appropriate to review the market and therefore, it is appropriate to remove the *ex ante* regulation from the market. We consider the application of these criteria in Section 4 below.

The current market review

- 2.34 In March 2016 we published a consultation (the '**2016 Consultation**') setting out our proposals, in light of the Undertakings, to remove the significant market power regulation on Arqiva in the broadcasting transmission services market.¹⁶
- 2.35 Nine stakeholders responded to the 2016 Consultation, all non-confidential respondents are listed below and their responses published on our website: ¹⁷
- Arqiva
 - BBC
 - Digital 3 and 4
 - Folder Media
 - Lincs FM
 - Radiocentre
 - SDN
 - Voice of the Listener and Viewer
 - A confidential respondent

Impact assessment

- 2.36 The analysis presented in the 2016 Consultation constitutes an impact assessment as defined in section 7 of the 2003 Act. In this Statement we take into account relevant responses and set out our conclusions on the impact of the changes.
- 2.37 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

¹⁵ Recital 22 of the 2014 Recommendation.

¹⁶ Ofcom, [2016 Consultation](#).

¹⁷ <http://stakeholders.ofcom.org.uk/consultations/broadcasting-transmission-services/?showResponses=true>

that generally we have to carry out impact assessments where our proposals would be likely to have a significant effect on businesses or the general public, or when there is a major change in Ofcom's activities. However, as a matter of policy Ofcom is committed to carrying out impact assessments in relation to the great majority of our policy decisions.¹⁸

Equality impact assessment

- 2.38 Ofcom is required by statute to assess the potential impact of all our functions, policies, projects and practices on race, disability and gender equality. We fulfil these obligations by carrying out an Equality Impact Assessment (“EIA”), which examines whether or not the remedies that we have proposed for the Broadcast Transmission Service market would have an adverse impact on equality. EIAs also assist us in making sure that we are meeting our principal duty of furthering the interests of citizens and consumers regardless of their background or identity.
- 2.39 It is not apparent to us that the removal of the regulation that we imposed on Arqiva in 2005 is likely to have any particular impact on race, disability or gender equality. Specifically, we do not envisage the impact of this to be to the detriment of any group of society.
- 2.40 Nor are we envisaging any need to carry out separate EIAs in relation to race or gender equality or equality schemes under the Northern Ireland and Disability Equality Schemes. This is because we anticipate that our regulatory intervention will affect all industry stakeholders equally and will not have a differential impact in relation to people of different gender or ethnicity, on consumers in Northern Ireland or on disabled consumers compared to consumers in general. Similarly, we are not envisaging making a distinction between consumers in different parts of the UK or between consumers on low incomes. Again, we believe that our intervention will not have a particular effect on one group of consumers over another.

¹⁸ For further information about our approach to impact assessments, see [Better Policy Making, Ofcom's approach to Impact Assessment, 2005](#).

Section 3

Market Definition

Introduction

- 3.1 The purpose of market definition in this review is to structure and inform our forward looking decision of whether any undertaking holds a position of SMP in BTS such that it should remain subject to SMP regulation. In this section, we present our conclusion on which products are included in the relevant markets as well as the geographic extent of those markets.
- 3.2 In line with the 2014 Recommendation (see paragraphs 2.31 to 2.33), this review is only concerned with reviewing the markets in respect of which there is SMP regulation currently in place; i.e. NA regarding masts and sites, where in 2005 we found that Crown Castle and ntl:broadcast each had SMP. We therefore do not consider market definition in relation to the provision of MTS.
- 3.3 Our general approach to market definition is set out in Annex 1. In formulating this approach, we have taken account of the 2014 Recommendation, the accompanying 2014 Explanatory Note, as well as the Commission's guidelines on market analysis and the assessment of SMP (the "**SMP Guidelines**").¹⁹
- 3.4 Where appropriate, our analysis has also been informed by our market definition in the 2005 Statement and the CC's market definition in its 2008 report on the Arqiva/NGW merger, which we consider in light of subsequent market developments.
- 3.5 Our assessment of the relevant BTS wholesale markets is informed by an analysis of demand at the retail level, from which demand for wholesale services is derived. The retail level associated with BTS comprises the viewing of DTT channels and listening to analogue and digital radio stations, and the purchase of advertising time by advertisers to gain access to those viewers and listeners.

Summary of the 2016 Consultation

- 3.6 In the 2016 Consultation, we considered that there exist two separate retail markets: (i) television content broadcast by terrestrial transmission; and (ii) radio content broadcast by terrestrial transmission, the geographic scope of which can be distinguished on a national, regional/ metropolitan and local basis given that broadcasters receive licences with defined coverage limits along these lines.
- 3.7 At the wholesale level, we provisionally concluded that there exists:
- a UK-wide market for the provision of NA services for DTT; and
 - a UK-wide market for the provision of NA to multiplex operators for radio broadcasters of national stations, regional metropolitan stations and those local

¹⁹ Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services (2002/C 165/03): <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2002:165:0006:0031:EN:PDF>.

radio stations that purchase NA centrally and broadcast from Ofcom regulated sites.

Summary of consultation responses

- 3.8 Arqiva, the BBC, Digital 3 and 4, SDN, Voice of the Listener and Viewer and the confidential respondent broadly agreed with our market definition.
- 3.9 Folder Media, Lincs FM and Radiocentre disagreed with our assessment of BBC local radio, specifically our proposal that the BBC treats local radio as part of a national network and therefore its approach to procurement of NA for BBC local radio is the same as for BBC national radio. Folder Media, Lincs FM and Radiocentre argued that the BBC has to negotiate carriage on a multiplex by multiplex basis, meaning that procurement for BBC local radio is sufficiently different to BBC national radio that they should be considered separately in our market definition assessment. We address this point in paragraphs 3.46 and 3.47 below.

Markets for listeners and advertisers

DTT and radio broadcast content to end-users

- 3.10 We first consider whether, at the retail level, DTT content is part of the same market as terrestrial radio content. At the retail level both DTT and radio are two-sided, with competition occurring both for listeners and for advertisers.
- 3.11 In the 2005 Statement, we concluded that DTT content and terrestrial radio content are in separate product markets, as the experience and attributes of the two media are very different and a substitution to the other form of broadcasting is unlikely to meet the requirements of a radio listener or a television viewer.²⁰ We also considered that supply-side substitution from radio to television or vice versa was likely to be limited given the costs involved.
- 3.12 We have no reason to believe that the position is any different now. Listening to radio is a very different experience from TV viewing. Most UK consumers are both TV viewers and radio listeners at different times of the day and the two are likely to be seen as complements rather than substitutes. We have no evidence of switching between these services in response to changes in relative quality or for any other reason. Indeed, average weekly radio listening hours per head, and minutes spent watching TV per person per day, have remained fairly steady since 2009. Likewise, for advertising, while some firms may advertise on both TV and radio; in TV advertising the visual element is crucial. Radio accounts for just over 3% of advertising spend.²¹
- 3.13 Accordingly, television and radio content broadcast by terrestrial transmission can be regarded as separate markets.

DTT and other TV platforms

- 3.14 Television services are currently available in the UK through digital terrestrial, cable, satellite and internet protocol ("IP") technology. As Figure 3.1 illustrates, the major

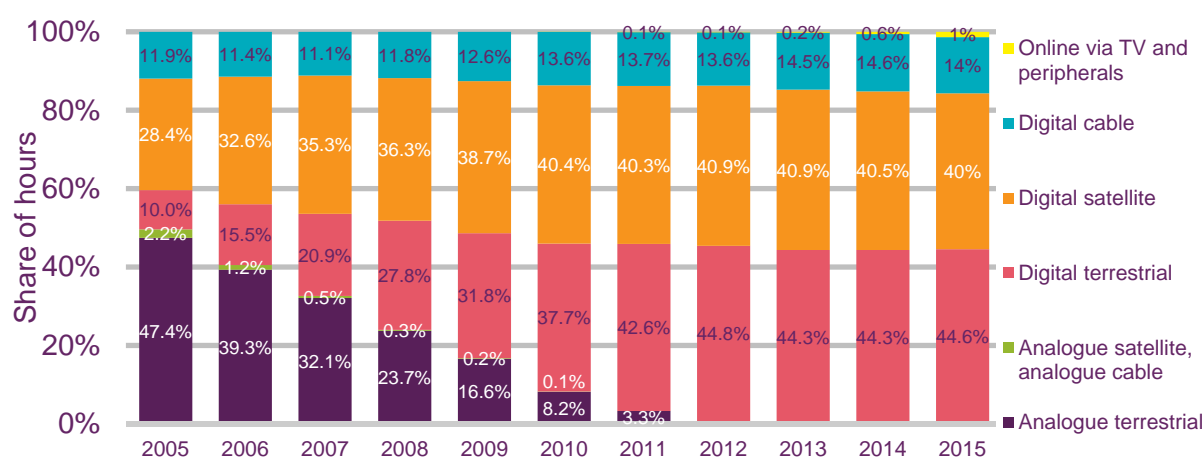
²⁰ Ofcom, [2005 Statement](#), paragraphs 3.6 and 3.7.

²¹ Viewing, listening and advertising figures from: Ofcom, [Communications Market Report 2016](#), Figure 3.1.

changes in TV viewing in the UK since 2005 have been the replacement of analogue terrestrial television with DTT, and the increased viewing of satellite, and to a lesser extent cable, at the expense of terrestrial television. However, DTT accounts for almost 45% of TV viewing, and its share of viewing has stabilised in recent years, following the implementation of digital switch-over. Share of viewing on satellite has not increased since 2010, while cable has gained one percentage point share of viewing over five years.

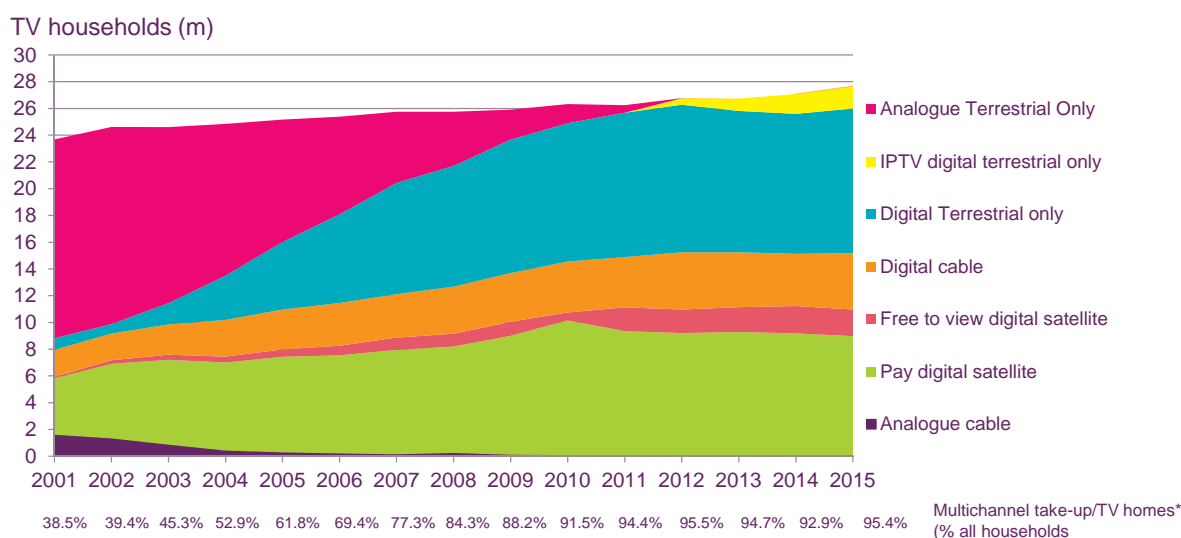
- 3.15 More than four in ten UK households are DTT-only, corresponding to over 10 million households (Figure 3.2). The number of households with satellite or cable subscriptions in 2014 was similar to the numbers in 2010. Switching between TV providers, at 3 to 5% per annum depending on platform,²² is lower than for other communications services in the UK (Figure 3.3).

Figure 3.1: Proportion of total TV viewing hours, by platform signal



Source: BARB, individuals 4+, all homes, total hours. Based on viewing through the reception mode present in home as a proportion of all viewing through all platforms on all TV sets in home. Note: New BARB panel introduced in 2010. As a result, pre- and post-panel change data must be compared with caution.

²² Note that these switching rates exclude home movers.

Figure 3.2: Platform take-up: 2001 to 2015

Source: BARB Establishment Survey. Household-level data based on all TV sets in homes. Data points are based on Q4 of each year. Notes: From Q4 2015 BARB changed its methodology and its definition of a TV set-owning household. The main change was that up to Q4 2015 a home was defined as a TV home if it owned a TV set which had been used to watch TV programmes in the last six months. Since Q4 2015 the claimed usage element was removed, which led to an increase in the TV set homes population. BARB did not re-state the TV homes population before the methodology change, so comparisons with previous data should be made with caution.

*Digital switchover was completed across the UK in October 2012. Data from 2013 therefore refers to TV households as a % of all households.

Digital terrestrial TV = digital TV through an aerial (this could include Freeview, BT TV/ TalkTalk/ YouView) and not through DSAT/DCAB or other platforms.

IPTV digital terrestrial only = receives digital terrestrial TV through any of BT TV/ TalkTalk/ YouView (but may have Freeview integrated TV) and not DSAT/DCAB/other platforms.

Figure 3.3: Switching in fixed-line, mobile, fixed broadband markets and TV markets in the past 12 months: year-on-year comparison

Switched in 12 months to Sept.	Sept 2015		Sept 2014		Sept 2013	
	Total	Excl. home move	Total	Excl. home move	Total	Excl. home move
Fixed line	11% ↑	9% ↑	7% ↓	6% ↓	11%	9%
Mobile	10% ↑		7% ↓		11%	
Broadband	11%	8%	8%	6%	11%	9%
Total TV	6% ↑	4% ↑	3%	2%	4%	3%
Pay TV	7% ↑	5% ↑	3%	2%	5%	4%
Free-to-air TV	5% ↑	3%	2%	1%	2%	1%

Source: Ofcom decision-making survey carried out by Saville Rossiter-Base in July to August 2013, 2014 and 2015.

Base: All adults aged 16+ who are the decision-maker for fixed line (2015, 2199; 2014, 1736; 2013, 1596) mobile (2015, 2609; 2014, 1679; 2013, 1718), broadband (2015, 1877; 2014, 1464; 2013, 1291) total TV (2015, 2251;

2014, 1723; 2013, 1592), pay TV (2015, 1302; 2014, 1006; 2013, 908), Freeview (2015, 948; 2014, 717; 2013, 648).

- 3.16 As noted at paragraph A1.10, the relevant question for the purpose of our retail market assessment is whether other TV platforms are an indirect constraint on the price of BTS, such that higher BTS prices would lead to higher retail prices or reduced quality, causing viewers to switch to other TV platforms and thus making higher BTS prices unprofitable. Our market definition relates specifically to this question of BTS prices, rather than to a more general view of whether or not TV platforms should be seen as operating within the same market.
- 3.17 In order to conclude that other TV platforms were an indirect constraint on the price of BTS, we would need evidence that a wholesale price increase would be passed through to retail customers and that this would result in sufficient demand substitution at the retail level to render the wholesale price increase unprofitable.²³ However, because DTT is free-to-view (“FTV”), channels cannot simply pass on higher BTS costs to viewers. It is possible in principle that channels could respond to higher BTS costs in ways that would reduce the relative quality of DTT and that retail customers would respond by switching to other platforms.
- 3.18 Channels could in principle respond to higher BTS costs by reducing quality (e.g. investing less in content). However, this would also affect non-DTT platforms, on which the same channels are present (albeit that they typically have lower viewing share on those platforms). While it is possible in principle that the quality of FTV channels could reduce to an extent that marginal consumers of DTT switched to subscription services, a change in BTS costs would need to have a material impact on channels’ overall costs, and consequently on their quality, in order to have this effect on the DTT platform as a whole, and we consider this unlikely.
- 3.19 Alternatively, channels could withdraw from the DTT platform. However, as we discuss in our assessment of the wholesale market, there is limited scope for channels or multiplexes to leave the DTT platform in response to higher BTS prices, given the importance of DTT in the UK and the presence of coverage obligations. In addition, the high sharing of viewing which DTT retains, and the low rate of switching, do not support a view that DTT viewers are highly responsive to changes in the quality of the platform.
- 3.20 As we discuss below in relation to wholesale markets, BTS costs are in many (though not all) cases a relatively small component of broadcasters’ costs and revenues such that an overall 5-10% increase in the price of NA could be achieved without prompting channels either to materially reduce their programming quality, or to withdraw from DTT.
- 3.21 In view of the above, we conclude that, for the purpose of assessing market power in the provision of NA services, the relevant retail market is DTT and does not include other TV platforms.

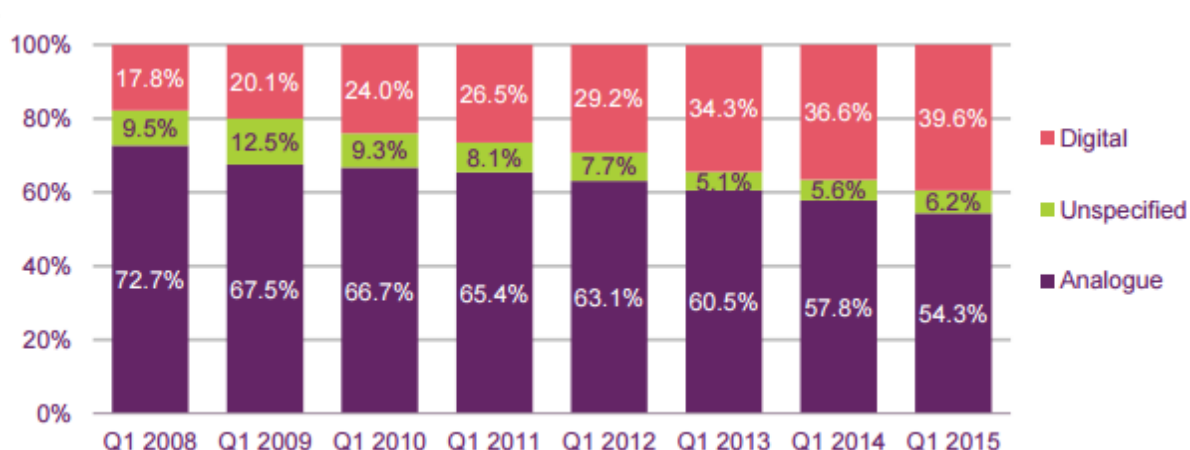
Terrestrial radio content

- 3.22 Radio markets include both commercial stations and BBC radio stations.

²³ See, for example, European Commission letter to Ofcom re Commission Decision concerning Case UK/2014/1606: Wholesale local access market, http://stakeholders.ofcom.org.uk/binaries/consultations/review-wba-markets/statement/UK-2014-1606_1608_Adopted_EN.pdf.

- 3.23 On the listening side, the majority of people listen to radio through terrestrial means and this has not changed over time. As can be seen from Figures 3.4 and 3.5, by Q1 2015, the share of total listening hours accounted for by analogue receivers stood at 54.3%, while the share of digital platforms, of which two thirds was accounted for by DAB receivers, was 39.6%.

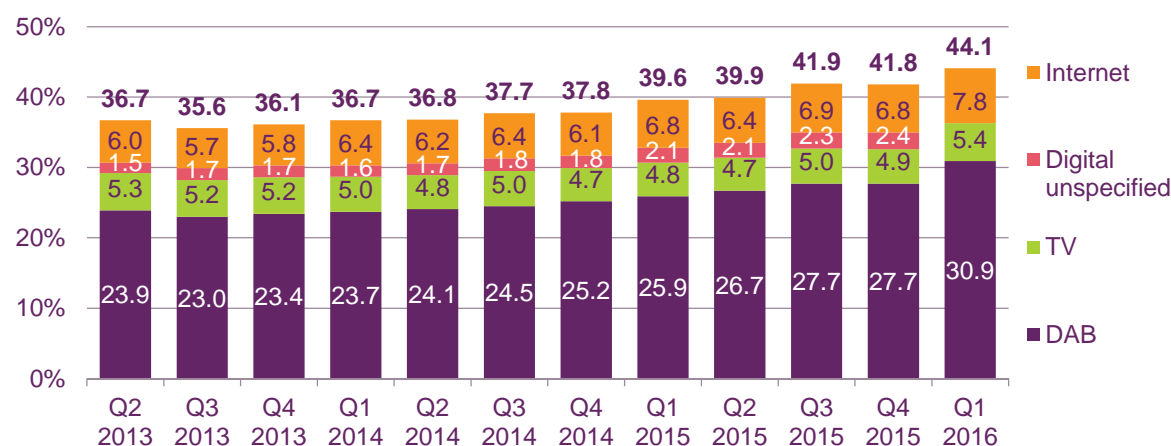
Figure 3.4 - Share of listening hours across analogue and digital platforms



Source: RAJAR, all adults (15+), data relates to Q1 results as shown. Note: 'Unspecified' relates to listening where the radio platform was not confirmed by the listener.

Figure 3.5 – Share of digital radio listening by platform

Digital radio platforms' share of all radio hours



Source: RAJAR Quarterly wave of radio listening.

Note: 'Digital unspecified' relates to listening to digital-only stations where the survey respondent has not specified the listening platform used. With effect from Q1 2016 this term has been eliminated. 'Internet' is classified as 'online/apps'

- 3.24 As Arqiva controls 90% of terrestrial radio transmission in the UK (digital and analogue), the relevant question for market definition is whether it faces a competitive constraint from other means of radio transmission, such as online or through a TV. In principle we would broadly expect advertising to follow listeners, so that if listeners switched away from terrestrial radio this would be reflected in a loss of advertising revenue associated with terrestrial radio. Figure 3.5 shows that to date use of these alternative platforms for radio listening is relatively limited, and many

listeners might find it impractical or inconvenient to switch to these other platforms. Moreover, it is unclear how an indirect constraint would operate when radio channels broadcast the same content online or on TV as they do via terrestrial transmission – if, for example, higher transmission costs reduced the quality of content on radio stations, this would equally effect their terrestrial transmission, online and TV services. While other audio news and entertainment services are available (e.g. podcasts) these require the use of a connected device and are unlikely to be seen as a close substitute to live radio.

- 3.25 In light of the above, we have concluded that a market exists at the retail level for analogue and digital radio content broadcast to end-users by terrestrial transmission. It is unclear from available information, e.g. listening data in the Communications Market Report 2016, whether the market can be sub-divided into digital radio and analogue radio.²⁴ However, given Arqiva's market position in both digital and analogue transmission noted above, this uncertainty does not affect our market definition assessment at the wholesale level.
- 3.26 Our view is that the geographic scope of the retail market (or markets) can be distinguished on a national, regional/metropolitan and local basis, given that broadcasters receive licences with defined coverage limits along these lines.

Wholesale markets

- 3.27 Having identified the relevant retail markets, we now go on to define the relevant markets at the wholesale level.

NA services for DTT

Product market

- 3.28 In defining the product market, our starting point is the provision of NA services for DTT. We consider whether a hypothetical monopoly provider of these services would be able to sustain a small but significant and non-transitory increase in price (SSNIP).
- 3.29 A monopoly provider of NA services for DTT could in principle be constrained at the **wholesale** level, by broadcasters substituting provision via other TV platforms for provision via DTT; or indirectly at the **retail** level as discussed above.
- 3.30 The PSBs, whose main channels account for more than half (51%) of total television viewing,²⁵ are required under their licence obligations to provide their main channels to end-users via terrestrial transmission, and as noted at paragraph 2.13, the PSB multiplexes are each required to provide coverage to at least 98.5% of UK households. Therefore, cable, satellite and IPTV transmission services could not be considered as substitutes for terrestrial transmission for the PSBs. We note that we have the option of imposing must-carry obligations in relation to the PSBs. We consider this issue further in our SMP assessment.²⁶

²⁴ The answer would depend in particular on the extent to which advertisers can reach sufficient coverage levels on digital or analogue radio or need both.

²⁵ Ofcom, [Communications Market Report 2016](#), figure 2.47. The figure of 51.2% relates to BBC One, BBC Two, ITV, Channel 4 and Channel 5.

²⁶ See paragraph 5.6.

- 3.31 For FTV commercial channels generally (including PSBs), switching would mean a loss of exposure to large DTT audiences and the advertising revenue that accompanies it. The DTT platform accounted for 44% of total viewing hours in 2014, while 39% of households receive TV via DTT only.²⁷ It is highly unlikely that any broadcaster could withdraw one or more channels from DTT and expect a large proportion of viewers to switch to another platform in order to continue viewing those channels, particularly given (a) the requirement of PSB channels to be on DTT, (b) the high viewing share which DTT has retained over the years, and (c) limited switching between TV platforms. In light of this we conclude that FTV commercial channels have a strong incentive to be on the DTT platform, and are likely to view alternative platforms largely as a complement rather than a substitute.
- 3.32 It is possible in principle that some channels at the margin would be willing to switch from DTT to a different platform. However, the scope for this is limited. All of the 25 top channels by viewership²⁸ are already available across all the other major platforms, e.g. satellite and cable;²⁹ of the remaining channels on DTT,³⁰ the majority are also available on all the other major platforms.³¹ As such there is limited scope for channels to “substitute” their DTT audiences with audiences on other platforms.
- 3.33 Moreover, BTS costs are in many (though not all) cases a relatively small component of broadcasters' costs, and a small proportion of their revenues, such that an overall 5-10% increase in the price of NA could be achieved without prompting channels either to materially reduce their programming quality, or to withdraw from DTT. This is particularly true of the most popular channels on DTT, which are likely to be the most important to viewers in considering the relative price and quality of different platforms.
- 3.34 In view of the above analysis, we have concluded that the provision of NA services for DTT does not face a competitive constraint at the wholesale level, i.e. from broadcasters switching to other TV platforms in response to prices above competitive levels.
- 3.35 We consider the retail market and the possible presence of indirect constraints in paragraphs 3.10 to 3.17. Our view is that a monopoly supplier of NA services for DTT is unlikely to face a strong price constraint from the prospect of households switching to other platforms.

Radio

- 3.36 We have considered whether this market should be widened to include wholesale NA services for radio. In light of the above discussion on the scope for substitution between NA for DTT and NA for radio, we have determined that there is no case for widening the market in this way,³² and that the provision of NA for DTT is a relevant wholesale market for the purposes of this review.

²⁷ Ofcom data, August 2016

²⁸ Based on [BARB data](#).

²⁹ BT and TalkTalk make use of YouView, a hybrid IPTV/DTT platform, so these channels are also available to YouView viewers.

³⁰ [Freeview](#)

³¹ See lists of available channels on [Sky](#), [YouView](#), and [Virgin Media](#).

³² We also do not consider there is any scope for supply-side substitution from NA for radio to NA for DTT, given technical differences (radio requires lower powered transmission and fewer transmitters

Geographic market

- 3.37 The PSBs are obliged to ensure that their main channels, which account for 51.2% of all television viewing, reach 98.5 per cent of UK households (see paragraph 3.30). To achieve this level of coverage, they transmit national DTT from 1,160 sites around the country.
- 3.38 It could be argued that each site forms a separate market, as transmission from an alternative site cannot act as a substitute. However, as we explain in Annex 1, it may be appropriate to define a geographic market by grouping together areas which are subject to homogeneous competitive conditions,³³ despite the absence of demand- and supply-side substitutability.
- 3.39 We conclude that the competitive conditions across all DTT sites are sufficiently homogenous, given that NA is contracted on the basis of the national networks. In particular, the PSBs require and demand NA on a national basis for their main channels and portfolio channels, which together attract 71% of total TV viewing.³⁴
- 3.40 We therefore determine that the geographic market for the provision of NA for DTT is the UK.

NA services for radio

- 3.41 The nature of NA services for radio, given their local and regional dimensions, means that considerations of the product and geographic markets are inextricably linked.

Product market

- 3.42 We have considered the product market for NA for radio.
- 3.43 At the wholesale level, it is unlikely that a monopoly provider of NA services for radio could be constrained by broadcasters substituting provision via cable, satellite or IPTV, given that the large majority of radio listening is over analogue or digital radio sets (see paragraph 3.23 above).
- 3.44 We therefore go on to consider whether the provision of NA services for analogue and digital radio are in the same market and whether services for national, regional/metropolitan and local radio are in the same market.
- 3.45 In the 2016 Consultation, we said we understood the BBC treats BBC local radio as part of a national network, and that its approach to procurement of NA for BBC local radio is the same as for BBC national radio. In order to consider differences between the supply of NA to national, regional/metropolitan and local radio stations we focused therefore on the commercial and independent sector.
- 3.46 We asked stakeholders whether they agreed with this position, and in response Lincs FM, Folder Media and the Radiocentre commented that access to individual local multiplexes needed to be negotiated with each multiplex operator and the process of

than DTT) and different customer requirements (most DTT customers offer UK-wide services whereas a significant proportion of radio coverage is regional or local).

³³ An approach recognised by the European Commission.

³⁴ Ofcom, [Communications Market Report 2016](#), figure 2.47. The figure of 71% relates to the main channels listed in the footnote above in addition to their variants i.e. 'plus one'.

procurement for BBC Local Radio was therefore different from the procurement process for BBC national radio. Accordingly, they said there could be an issue with excluding BBC local radio from our consideration of the differences between the supply of NA to national, regional/metropolitan and local radio stations.

- 3.47 However, these arguments are concerned with the purchase of multiplexing services by radio stations (in order to secure capacity on a radio multiplex), rather than purchasing of NA services by the radio multiplex, and hence is a transaction at a downstream level of the value chain from NA. We therefore remain of the view that procurement of NA for BBC local radio is the same as for BBC national radio.
- 3.48 Analogue radio broadcast licences are less prescriptive than television broadcast licences, specifying areas to be covered but not specific sites to be used (not least because, unlike DTT, radio broadcasting is generally non-directional). However, ensuring compliance with our interference standards means that there may be limited opportunity to substitute sites (on the demand- or supply-side), especially when issues of topography and capacity constraints are considered.
- 3.49 In our approach to radio broadcasting, we distinguish between national radio broadcasting (defined as using antennas of 50 metres or more in height and at a power of 2kW or more); regional/metropolitan broadcasting (defined as using over 0.5kW in power and reaching in excess of 200,000 people); and local radio broadcasting (defined as using up to 0.5kW in power and reaching fewer than 200,000 people).

Analogue and digital radio

- 3.50 We have considered whether NA services for AM analogue, FM analogue and for DAB digital radio are in the same product market. The CC, in its 2008 merger report, treated them as being in the same product market.³⁵ We see no reason to depart from this view, given that the purchasing habits for NA are the same in respect of AM analogue, FM analogue and DAB digital radio.
- 3.51 We therefore conclude that NA services for analogue and DAB digital radio fall within the same wholesale product market.

Services for national, regional/metropolitan and local radio

- 3.52 We have also considered whether services for national, regional/metropolitan and local radio are in the same wholesale product market.
- 3.53 In terms of NA needs, relevant factors include the extent to which there is a need to propagate a signal over a wide area (favouring tall purpose-built transmission masts, broadcasting signals from more than one location, and the use of higher power transmitters potentially requiring a more specialist workforce). 144 AM stations, 546 FM stations and 71 DAB multiplexes (including 10 'Small Scale DAB' trials) are currently transmitted in the UK, of which six AM stations, 50 FM stations and 56 DAB multiplexes transmit from four or more sites.³⁶
- 3.54 We considered whether the market for NA for local radio should be treated as distinct from that for national and regional/metropolitan radio, on the basis of differing

³⁵ CC, [Macquarie / NGW final report: 2008](#), paragraphs 4.19 to 4.22.

³⁶ Ofcom Technical Licensing Database, March 2016.

competitive conditions. However, most NA for local radio is purchased by a small number of large commercial groups.³⁷ We understand that most of these groups purchase NA centrally through multiplex operators (although the existence of differing licence periods generally prevents multiple stations purchasing at the same time). In our view these commercial groups broadly resemble national and regional/metropolitan broadcasters in terms of the nature of their requirements and their negotiating power.

- 3.55 Against this background, we do not consider that the relevant market divide is between NA for national and for sub-national radio. We recognise that within the market it is potentially easier to enter at a local level due to lower infrastructure costs and fewer technical requirements. However, we conclude that local radio is sufficiently similar to national and regional/metropolitan radio for it to be in the same market.
- 3.56 Therefore, we conclude that the relevant wholesale product market is the provision of NA to multiplex operators for radio broadcasters of national stations, regional/metropolitan stations and those local radio stations that purchase NA centrally and broadcast from Ofcom regulated sites.

Geographic market

- 3.57 The conditions for competition in the provision of NA to sub-national radio are also national in scope, given that the majority of sub-national analogue radio stations and DAB multiplexes are owned by large media groups which take commercial decisions centrally for their geographically dispersed portfolio of stations. We therefore conclude that the geographic market for the provision of NA to the relevant radio market is the UK.

³⁷ Bauer, Global, Folder Media, Wireless Group, Orion Media, Celador Radio, UKRD Group, Lincs FM, Communicorp and Arqiva itself.

Section 4

Appropriateness of regulation

Summary of 2016 Consultation

- 4.1 In the 2016 Consultation we assessed whether the three criteria, as outlined in the 2014 Recommendation were cumulatively met.
- 4.2 We provisionally concluded that:
- the DTT NA market and the radio NA market would be characterised by high and non-transitory barriers to entry,
 - these markets were characterised by a structure which shows no signs of moving towards effective competition; and
 - national and EU competition law remedies alone would be insufficient to address market failures in the DTT NA market or the radio NA market. The main market failures that we would be concerned with would be refusal by Arqiva to provide access, discrimination by Arqiva through setting different terms and conditions for different customers and Arqiva charging excessively high prices.
- 4.3 We therefore provisionally concluded that all three of the cumulative criteria appear to be met in respect of the DTT NA market and the radio NA market. As a result, we considered that both markets are susceptible to ex ante regulation.

Summary of consultation responses

- 4.4 All respondents agreed with our assessment that the DTT and radio NA markets are susceptible to ex ante regulation. The BBC also argued that the relevant regulatory framework makes clear that having satisfied the three criteria test, a finding of SMP is the only permissible conclusion and the imposition of conditions is therefore mandatory.

The three criteria test

- 4.5 As explained in Section 2, BTS is no longer listed as a market that may be susceptible to *ex ante* regulation under the CRF. Therefore, in order to go on to assess whether it is appropriate to impose regulatory obligations on operators within either the DTT NA market or the radio NA market, the 2014 Recommendation requires that we should ensure the following three criteria are cumulatively met in relation to each market:
- the presence of high and non-transitory barriers to entry. These may be of a structural, legal or regulatory nature;
 - a market structure which does not tend towards effective competition within the relevant time horizon. The application of this criterion involves examining the state of competition behind the barriers to entry;
 - the insufficiency of competition law alone to adequately address the market failure(s) concerned.

4.6 We have therefore considered each of these criteria.

Barriers to entry

4.7 There are substantial financial costs involved in the establishment of a national terrestrial broadcast transmission network comparable to that of Arqiva, which would be substantially sunk if the enterprise was to fail.

4.8 Arqiva has said itself that its businesses are protected by a variety of economic, geographical, and regulatory barriers to entry.³⁸ With regard to terrestrial broadcast it has said:

“The Group’s terrestrial broadcast business unit operates as a regulated sole provider of national television broadcast and is a holder of Significant Market Power with respect to national/metropolitan and regional radio broadcast with approximately 90% of the radio broadcasting infrastructure in the UK, and has long-term customer contracts and a nationwide infrastructure with prime locations in the UK and which the Group believes would be extremely expensive to replicate. Thus, the substantial expenditures necessary to challenge the physical infrastructure and the Group’s strong financial and contractual relationships with clients represent a high barrier to entry for competitors, resulting in the Group’s unique regulatory position.”

4.9 A broadcasting network is typically designed to give the maximum possible coverage of the target population with a minimum of broadcast transmission sites. This requires selecting suitable higher altitude sites which can yield the greatest coverage of the population. The purchase and maintenance of sites would be costly and the timeframe and technological know-how required to build an alternative network would make it uneconomical to compete with an established player such as Arqiva. It is also unclear whether current coverage levels could be replicated within a short timeframe (say two to three years). For television, most viewers receive their TV services through fixed rooftop aerials pointing at a particular transmitter. Any alternative network would therefore need to locate their transmitters in line with existing aerials. Given availability of suitable land and planning constraints, maintaining reception to all existing viewers from an alternative transmitter network would be almost impossible to achieve in practice.

4.10 Construction of broadcast transmission infrastructure, including towers and on-site buildings to house broadcast transmission equipment, requires appropriate planning permission, which would carry a significant risk of rejection. It is worth noting that most sizeable broadcasting structures were built between the 1930s and mid-1970s when planning regulations were either not present or were less rigorous than today. This is particularly true in areas such as National Parks or areas designated as being of Special Scientific Interest.

4.11 Broadcast transmission contracts for UK-wide services are long term commitments typically for periods in excess of a decade with clear and demanding service levels agreements. In view of the importance broadcasters attach to quality assurance, we would expect them to be unwilling to contract with an NA provider that was unable to

³⁸ Prospectus issued by Arqiva, 27 January 2014, page 131.

prove that it had in place personnel and systems capable of delivering the highest standards in this area, including strength in depth to deal with unusual challenges.

- 4.12 In its response, the BBC specifically considered barriers to entry. The BBC argued that there are high barriers to entry in both the DTT and radio NA markets and little sign of new entrants in either.
- 4.13 In light of the above, we conclude that the DTT NA market and the radio NA market would be characterised by high and non-transitory barriers to entry.

Dynamic aspects

- 4.14 In removing the BTS market from the European Commission's list of markets, the 2007 Explanatory Note explained that, in general, the second criterion had not been satisfied in wholesale broadcasting markets on an EU-wide basis, so that despite entry barriers that may exist, the market dynamics were such that the market structure tends towards effective competition over a relevant time horizon.³⁹
- 4.15 We note the European Commission's view, as set out in the 2007 Explanatory Note, that there is greater platform competition in many EU Member States. However, DTT and terrestrial radio remain very important platforms in the UK and for the reasons set out in Section 3, we have concluded that the supply of NA for DTT and the supply of NA for analogue and digital radio form separate markets.
- 4.16 Moreover, in the UK, Arqiva is the only provider of NA to DTT broadcasters and there has been no new entry since the 2005 Statement, nor is there any indication that there is likely to be entry at any time soon, which is unsurprising given the high barriers to entry.⁴⁰
- 4.17 There is limited competition in the provision of NA to radio broadcasters and Arqiva has retained a very high share of supply, which it estimates to be 90%.⁴¹
- 4.18 We therefore conclude that the wholesale markets we have identified would be characterised by a structure which shows no signs of moving towards effective competition.

Sufficiency of competition law

- 4.19 The third criterion in paragraph 4.2 above would not be met if competition law provided a sufficient suite of remedies to be applied to address any likely market failures.
- 4.20 The main market failure we would be concerned with in the DTT NA market or the radio NA market is Arqiva using its position to foreclose access, and in particular: any refusal by Arqiva to provide wholesale access to third parties; discrimination by Arqiva by setting different terms and conditions (including prices) for different customers; and Arqiva charging excessively high prices.

³⁹ See paragraphs 2.28 to 2.30.

⁴⁰ On the contrary, there has been a move away from effective competition since our 2005 Statement. At the time there were two providers of NA, but following the acquisition by Macquarie of NGW, there is now just Arqiva.

⁴¹ [Arqiva Financial Report, Year ended 30 June 2015](#), page 5.

- 4.21 The requirements of intervening under national or EU competition law would be extensive – not only in terms of the time and resources required to investigate whether there had been a breach, but also to determine an appropriate remedy and then the need to monitor any imposed terms and conditions as part of the appropriate remedy.
- 4.22 Furthermore, while it is likely that some form of remedy would be available to address the above concerns under competition law to stop any such conduct, it is not clear how far such remedies could extend, in particular given the detailed nature and scope of the remedies that are likely to be required. This can be seen from the nature of the regulatory conditions that we imposed on Arqiva in 2005.
- 4.23 None of the respondents to the 2016 Consultation argued that competition law alone was sufficient to address any instances of market failure.
- 4.24 Accordingly, we conclude that national and EU competition law remedies alone would be insufficient to address market failures in the DTT NA market or the radio NA market.

Conclusion

- 4.25 We have considered the BBC's argument that the relevant regulatory framework makes clear that having satisfied the three criteria test, a finding of SMP is the only permissible conclusion and the imposition of conditions is therefore mandatory. The BBC argues that "*having reached the conclusions in Section 4 [of the 2016 Consultation] that the markets in question were not subject to effective competition, Ofcom is obliged to conclude that Arqiva holds a position of SMP*", relying on the Framework Directive and the SMP Guidelines in support of its position.⁴²
- 4.26 In making this argument, the BBC appears to conflate the assessment of whether a market is susceptible to *ex ante* regulation with the assessment of whether an operator holds a position of economic strength affording it the power to behave to an appreciable extent independently of competitors, customers and ultimately consumers; that is whether an undertaking has significant market power in that market. Recital 22 of the 2014 Recommendation provides:
- "National regulatory authorities should also apply the three-criteria test to those markets listed in the Annexes to Commission Recommendation 2003/311/EC (1) and to Recommendation 2007/879/EC which are no longer listed in the Annex to this Recommendation if they are currently regulated in the light of national circumstances, in order to assess whether, on the basis of such national circumstances, such markets are still susceptible to ex ante regulation."*
- 4.27 This assessment was carried out in Section 4 of the 2016 Consultation. This is not an assessment of whether an undertaking holds significant market power on the BTS markets but rather an assessment of whether the BTS markets have such characteristics as to justify *ex ante* regulation. Having considered the application of the three criteria test, we provisionally concluded that "[g]iven that all three of the cumulative criteria appear to be met in respect of the DTT NA market and the radio NA market, we consider that both markets are susceptible to *ex ante* regulation". This provisional finding says nothing as to whether any undertaking holds significant market power on these BTS markets.

⁴² See paragraphs 2.1 to 2.7 of the BBC's supplementary submission of 20 July 2016.

- 4.28 Rather, Section 5 of the 2016 Consultation goes on to consider whether or not Arqiva holds a position of economic strength on the BTS markets affording it the power to behave to an appreciable extent independently of competitors, customers and ultimately consumers; that is, whether it has significant market power. Our provisional view was that *“the Undertakings effectively remove Arqiva’s ability to act, to an appreciable extent, independently of competitors, customers and consumers and that it therefore does not have SMP in either the DTT NA market or the radio NA market”*.
- 4.29 Given this, in light of consultation responses and given that all three of the cumulative criteria appear to be met in respect of the DTT NA market and the radio NA market, we conclude that the DTT NA market and the radio NA market are susceptible to *ex ante* regulation.

Section 5

Market power assessment

Summary of 2016 Consultation

- 5.1 In the 2016 Consultation, we considered that: (i) the DTT NA market and the radio NA market show no signs of moving towards effective competition; (ii) that buyer power does not provide a sufficient constraint and (iii) that the imposition of must-carry obligations by Ofcom could not remove Arqiva's market power entirely in the markets.
- 5.2 However, we also considered that the Undertakings, which effectively incorporate the current SMP conditions, remove Arqiva's ability to act independently of competitors, customers and consumers.
- 5.3 We therefore provisionally concluded that Arqiva does not have SMP in either the DTT NA market or the radio NA market, as a result of the constraints imposed by the Undertakings.

Summary of consultation responses

- 5.4 Arqiva agreed with our assessment that no operator holds SMP in the DTT or radio NA market as a result of the Undertakings. It said that removal of the SMP conditions would not impact customers as the Undertakings remain in place and that the removal of the SMP conditions will provide market certainty.
- 5.5 Digital 3 and 4, SDN and Voice of the Listener and Viewer also agreed with our assessment, on the condition that the Undertakings remain in place and any attempt to alter them will trigger a review of the market by Ofcom.
- 5.6 The BBC also challenged our assessment that Arqiva's market power is constrained by the Undertakings. It considered that we had not undertaken a sufficiently detailed review as to the adequacy of the current arrangements and that the constraint imposed by the Undertakings, as administered by the Adjudicator, is not as effective as a regime directly administered by Ofcom. In particular, it was concerned that the current regime does not ensure that Arqiva's cost and charges face the equivalent pressure to that which might be expected in a competitive market.
- 5.7 The BBC noted that [§<].
- 5.8 The BBC also claimed that it had faced a number of issues when it tendered for its digital radio services in 2013 and that it considered these to be evidence of high barriers to entry and a lack of competition in the market.
- 5.9 Lincs FM and Folder Media said the Undertakings are not effective, particularly as they consider the price cap acts as a non-negotiable price. Lincs FM stated that it had recently moved away from Arqiva's "Total Broadcast Contract" and managed the service itself using alternative sites without the use of Arqiva infrastructure, which had resulted in considerable cost savings which it considers to be evidence that Arqiva is charging excessive prices. Folder Media said that new customers post-merger are at a disadvantage as they are given less favourable terms and conditions

than stakeholders that were able to roll over their contracts on pre-merger terms. This point is addressed in paragraphs 5.31 to 5.34.

- 5.10 The confidential respondent said competition across terrestrial, fibre and satellite has little or no effect on Arqiva's SMP and that the Undertakings alone do not constrain Arqiva. It considered that SMP conditions are still required to do this. We address this point at paragraph 5.45.

Approach to market power assessment

The regulatory framework

- 5.11 SMP is defined in the 2003 Act as being equivalent to the competition law concept of dominance. An operator shall be taken to have SMP if, either individually or jointly with others, it enjoys a position equivalent to dominance, that is to say a position of economic strength affording it the power to behave to an appreciable extent independently of competitors, customers and ultimately consumers.⁴³
- 5.12 We have taken particular account of the SMP Guidelines⁴⁴ and, where relevant, of the ERG Revised SMP Paper.⁴⁵ The SMP Guidelines set out a non-exhaustive list of criteria to be considered in an SMP assessment, and state that a dominant position may derive from a combination of these criteria, which taken separately may not necessarily be determinative.⁴⁶ Evidence on the most relevant SMP criteria should be considered in the round, and findings should not be based on assessment of a single criterion.
- 5.13 Whilst we consider all the criteria listed in the SMP Guidelines, we regard the following criteria as particularly relevant to assessment of SMP in BTS markets:
- structure of the market and barriers to entry (see Section 4);
 - countervailing buyer power (Section 5);
 - must carry obligations (Section 5);
 - and impact of the Undertakings (Section 5).
- 5.14 Given that we are required to determine whether an operator will enjoy a dominant position in any of the relevant markets over the course of the review period, it is

⁴³ See section 78 of the 2003 Act and Article 14 of the Framework Directive.

⁴⁴ Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services, 2002/C 165/03, [http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52002XC0711\(02\)](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52002XC0711(02)). In accordance with section 4A of the 2003 Act, we have taken due account of all applicable guidelines and recommendations which have been issued by the European Commission under Article 19(1) of the Framework Directive, and which relate to analysis or the determination of what constitutes significant market power. In doing so, pursuant to Article 3(3) of Regulation (EC) No 1211/2009, we have also taken utmost of any relevant opinion, recommendation, guidelines, advice or regulatory practice adopted by BEREC.

⁴⁵ Revised ERG Working Paper on the SMP concept for the new regulatory framework, September 2005, http://berec.europa.eu/doc/publications/public_hearing_concept_smp/erg_03_09rev3_smp_common_concept.pdf.

⁴⁶ Paragraph 79 of the SMP Guidelines.

important to bear in mind that a degree of uncertainty may be present in the SMP assessment as a whole.

- 5.15 We recognise that *ex ante* regulatory reviews should be forward-looking. Our aim is to assess whether markets can be prospectively competitive and thus whether any lack of competition is durable by taking expected or foreseeable market developments over the review period into account.⁴⁷
- 5.16 Below we explain in general terms how each of the SMP criteria identified as relevant in paragraph 5.13 above applies to the BTS markets identified in this review.

Our assessment

Structure of the market and barriers to entry

- 5.17 In Section 4 we explain why we consider the DTT and radio NA markets are characterised by high barriers to entry and a structure which shows no signs of moving towards effective competition, particularly given Arqiva's 100% share of the DTT NA market and its estimated 90% share of the radio NA market.

Countervailing buyer power

- 5.18 We have had regard to whether buyer power might provide a constraint on Arqiva's market power in either of the markets. Buyer power is the bargaining strength that the buyer has relative to the seller in commercial negotiations due to its size, its commercial significance to the seller and its ability to switch to alternative suppliers. It can provide a competitive constraint where buyers have the ability to obtain the services from an alternative supplier (including sponsored entry), to self-supply or to substitute an alternative service.
- 5.19 In the DTT NA market, Arqiva is the sole supplier of NA. As a result, a television broadcaster has no choice but to purchase DTT multiplex capacity that depends on NA from Arqiva. While the withdrawal of a popular commercial channel could cause some viewers to leave the DTT platform, which would not be in Arqiva's long-term interests, the effect on the channel itself would be an immediate and substantial loss of audience and advertising revenues. In addition, we note that even if some broadcasters had buyer power, this would not constrain the prices Arqiva could charge to broadcasters without buyer power. We therefore do not consider that buyer power provides a sufficient constraint in relation to the supply of NA in the DTT NA market.
- 5.20 Similar observations apply in the radio NA market where Arqiva controls 90% of terrestrial radio transmission in the UK. The BBC, which accounts for just over half of radio listening, is the strongest candidate for possible buyer power. However, in order for the BBC to exercise such power over Arqiva it would need to have a credible threat of self-supply or substituting to an alternative service which we do not consider is a credible response.
- 5.21 As regards the scope for self-supply or sponsored entry, either of these options would require extensive network build, and access to appropriate sites. While these options could be available to major broadcasters, they are likely to be unattractive in

⁴⁷ See Recital 27 of the Framework Directive and paragraph 20 of the SMP Guidelines. The forward-looking period of this review is three years.

a mature market. We do not consider that the prospect of self-supply or sponsored entry is sufficiently likely that it can be expected to constrain Arqiva's prices to the competitive level. Our view is that we cannot rely on countervailing buyer power to provide a constraint on Arqiva's market power in either of the markets.⁴⁸

Must-carry obligations

- 5.22 As noted at paragraph 2.28, the 2007 Explanatory Note states that access problems related to public interest objectives can be addressed through must-carry obligations. Ofcom has the ability under the 2003 Act to impose such obligations, but has not imposed any to date. Our powers in this regard cover only some of the PSB channels and do not extend to any of the non-PSB channels, which make up just under half of all viewing (see paragraph 3.30). We therefore conclude that while the imposition of must-carry obligations might have the potential to mitigate Arqiva's SMP in the DTT and radio NA markets to some degree, it would not remove it entirely.

Impact of the Undertakings

- 5.23 Although the above factors point to Arqiva having SMP in the DTT NA market and the radio NA market, we consider it is appropriate to also take into account the impact of the Undertakings on Arqiva's position in those markets and its ability to behave to an appreciable extent independently of competitors, customers and consumers.
- 5.24 If Arqiva were to have SMP in either of the DTT and radio NA markets, we would expect it to be able to use its position to foreclose access, and in particular: to refuse to provide wholesale access to third parties; to discriminate by setting different terms and conditions (including prices) for different customers; or to charge excessively high prices. In the 2016 Consultation we said that the Undertakings act as a constraint on Arqiva by preventing it from being able to act in this way. As set out in Table 5.1 below, the Undertakings include specific remedies which address any risk of foreclosure in this context.

Table 5.1: NA undertakings accepted by the CC

Access requirement	Paragraph number in the Undertakings
Third party access	11.1
Non-discrimination	11.2
Reference offer	12.4
Cost orientation	11.3

⁴⁸We note that in its response, Lincs FM said that it had begun to move towards self-supply using alternative sites without the use of Arqiva infrastructure and were confident of significant cost savings.

5.25 This view was reinforced by the CMA's publication in July 2015 of a review of remedies that it had accepted in previous merger cases entitled '*Understanding past merger remedies, Report on case study research*' with the aim of ensuring that learning points are captured and fed into the development of remedies policy and practice.⁴⁹ The Arqiva/NGW merger was one of the case studies considered as part of that review. Whilst not constituting a formal review of the Arqiva/NGW remedies by the CMA, we note here the following conclusions drawn by the CMA:

- the package of behavioural remedies had been effective in passing back to the industry the agreed 17% and 3.21% cost savings on radio and TV contracts respectively;
- customers had access to greater levels of information;
- there have been no serious issues of non-compliance with the service levels remedy;
- the Office of the Adjudicator was considered by all parties spoken to as being a clear success;
- the audit and compliance requirements had been successful;
- Arqiva did not appear to have used confidential information in an inappropriate manner; and
- on balance, all major stakeholders had been content with the merger proceeding, subject to the safeguards the CC had put in place, despite the fact that this would result in a monopoly supplier to broadcasters of a function critical to their business.

5.26 Absent the Undertakings we consider there would be a lack of effective competition in the DTT NA and radio NA markets. However, the Undertakings (which effectively incorporate the current SMP conditions) impact substantially on Arqiva's freedom of action, notwithstanding that they were put in place to address specifically the adverse effects of a substantial lessening of competition resulting from the Macquarie / NGW merger. The question for us is whether they are sufficient to remove Arqiva's ability to act independently of competitors, customers and consumers.

5.27 In order to meet the aims of the Undertakings, we consider that the Adjudication regime needs to be efficient, effective and sufficiently flexible to respond to changes in the market and/or customer requirements. Key objectives therefore include providing certainty and transparency for customers; encouraging commercial negotiation of contracts on a bilateral basis; and resolving disputes, in accordance with FRND (fair, reasonable and non-discriminatory) and cost oriented principles, in a flexible and timely manner where commercial negotiation fails. Stakeholders raised a number of points in response to the 2016 Consultation, including in relation to the adequacy of the Undertakings to constrain Arqiva's market power. We address each of these points below.

⁴⁹ CMA, [Understanding past merger remedies, Report on case study research, July 2015](#), pages 131-138.

Cost orientation and efficiency

- 5.28 The BBC said that although NA pricing is required to be cost oriented by the Undertakings, the current framework does not exert sufficient downward pressure on the costs upon which pricing is based to ensure they are incurred as efficiently as possible.
- 5.29 We are content that the framework established by the Undertakings provides Arqiva with the correct incentives to price efficiently. Although not determinative in this regard, Arqiva has provided us with evidence to show that the way in which it has implemented the cost orientation obligation in the Undertakings means that NA prices for DTT and radio are broadly reducing in real terms.⁵⁰ This is the same broad outcome that we would expect to see under SMP pricing regulation.
- 5.30 In addition, the Adjudicator has published extensive guidance for the production of “Reference Offers” under the Undertakings, including in relation to pricing.⁵¹ It incorporates guidance previously issued by Ofcom and notes the continued application of other relevant guidance. We note in this context that in 2009 we published guidance for the Adjudicator, which highlighted efficiency and remains a relevant consideration for the Adjudicator.⁵²

Pricing

- 5.31 Folder Media and Lincs FM both raised specific issues with Arqiva’s response to pricing. Both Folder Media and Lincs FM stated that they believed NA pricing has become a fixed price rather than a maximum charge with the possibility of negotiating a lower price. Folder Media also argued that new entrants to the market are given worse terms than those stakeholders that have rolled over pre-merger contracts.
- 5.32 We note that contracts are negotiable with Arqiva. A key role of the Adjudicator is to ensure effective negotiations can take place if operators do not consider Arqiva’s offer is consistent with its obligations under the Undertakings. We have therefore concluded that this is an issue that can be dealt with through operators engaging with the Adjudicator.
- 5.33 In this context, we note that in 2006 we issued general guidance on the basis of setting and reviewing the charges for the provision of network access, which included guidance on the publication of a reference offer. In 2009 Ofcom issued further general guidance on the analysis of costs and prices to the Adjudicator.⁵³
- 5.34 We are aware that stakeholders who are on legacy contracts that were signed before the Undertakings have the option to remain on this type of contract or to move to a new ‘open’ contract. Although the legacy contracts confer an advantage of a 17% saving for radio operators and a 3% saving for TV operators, we have not seen any evidence to suggest that the new open contracts are unfairly based. Moreover, Arqiva indicated in its additional submission to the 2016 Consultation that some customers have switched from the old legacy contract to the new open contract, which suggests that they found the terms and pricing of the new contract preferable.

⁵⁰ Letter dated 19 August 2016 from Arqiva to Ofcom.

⁵¹ The Adjudicator, [The Office of the Adjudicator - BTS Reference Offer Guidance, January 2015](#). See in particular sections 3.1 and 6.7.

⁵² Ofcom, [Guidance for the Adjudicator - The Arqiva Undertakings, January 2009](#).

⁵³ As above.

Transparency

- 5.35 The BBC also raised a number of issues with how the Undertakings work in practice, and specifically the role of the Adjudicator in the BTS market. The BBC argued that Ofcom is better placed to oversee the market given that we have a greater level of visibility with regards to its work and also that stakeholders are able to appeal decisions made by Ofcom.
- 5.36 We note that no complaints have been raised with Ofcom regarding Arqiva's existing SMP obligations. We acknowledge the importance of transparency to the effectiveness of the Adjudicator. In this context we observe that the Adjudicator regularly publishes information on its website, holds consultations and engages with stakeholders. In particular, we note the following:
- the DSO Audit – to ensure that Arqiva recovered the correct costs associated with the digital switchover process;⁵⁴
 - the Second Information Security Strategy audit – to ensure that confidential information held in one part of Arqiva cannot be used by another for commercial advantage, prompted by the BBC's radio tender process in 2013;⁵⁵
 - the KEEP database audit – to ensure the database accurately records the occupancy of sites. The database is the basis on which the NA charges are calculated.⁵⁶
- 5.37 We note that no complaint has been made to the CMA about the Adjudication regime since the Undertakings were put in place in 2008.

Process

- 5.38 The BBC, Folder Media and Radiocentre raised concerns that the CMA's 2015 review of the Undertakings, in which the CMA concluded the Undertakings had broadly been successful, was based on information gathered in 2012 and that significant market changes might have occurred since then.
- 5.39 We are satisfied that the evidence available to us justifies our conclusion that the Undertakings have been broadly successful since 2012 in restricting Arqiva's ability to act, to an appreciable extent, independently of competitors, customers and consumers. In reaching this view we have taken account of the following:
- In publishing our 2016 Consultation, we invited stakeholders to make representations to us with their views on the DTT NA and radio NA markets. We have considered each of the points raised in the process of reaching our final decision and find that none of the material provided indicates that the Undertakings are not working effectively.

⁵⁴ Digital Switchover was the process of moving from analogue to digital television in the UK. The audit was delivered to the multiplex operators and is referenced in the Adjudicator's quarterly report here: <http://www.adjudicator-bts.org.uk/documents/OTA-BTSReportOctDec13.pdf>.

⁵⁵ The audit report was delivered to the BBC and is referred to in the Adjudicator's quarterly report here: <http://www.adjudicator-bts.org.uk/documents/OTA-BTSReport-JulySept12.pdf>.

⁵⁶ This audit is ongoing; it is referred to in the Adjudicator's quarterly report here: <http://www.adjudicator-bts.org.uk/documents/OTA-BTS-OFT-period-31.pdf>.

- Since 2012 no disputes or complaints have been brought to the Adjudicator, Ofcom or the CMA in relation to the Undertakings or the DTT NA or radio NA markets. We note that the BBC said it faced a number of issues when it tendered for its digital radio services in 2013 and that it considered these to be evidence of high barriers to entry and a lack of competition in the market. However, the BBC did not raise a dispute with the Adjudicator during the process. Neither did it raise a complaint with Ofcom under Arqiva's SMP obligations or alert the CMA to any concerns regarding the role of the Adjudicator.

5.40 We therefore have no reason to believe that the findings of the 2015 CMA report, in which it determined that the Undertakings remained effective, do not remain valid today.

NA and MTS

5.41 The BBC highlighted the close relationship between NA services and MTS services and raised some concerns in this regard. It noted that the Undertakings are designed to, amongst other things, preserve the potential for competition at the MTS level.

5.42 We acknowledge that a strong relationship exists between NA services and MTS services (outlined in more detail in Section 2) and that there is a potential risk that Arqiva would leverage its position in the NA markets to the disadvantage of customers in the MTS markets.

5.43 However, the Undertakings cover both MTS and NA services and we are content that the Undertakings are designed to address this risk and as such, the Adjudicator has the ability to mitigate against it. We note that prices for transmission services (the combination of NA and MTS services) have been falling over the period of the Undertakings and that the Adjudicator has the ability to intervene if necessary.

General points

5.44 As noted above, the BBC, Folder Media, Lincs FM and the confidential respondent all argued that the Undertakings alone were insufficient to constrain Arqiva in the BTS market and that the SMP conditions should be retained at least until a further review of the Undertakings has been carried out.

5.45 The confidential respondent said competition across terrestrial, fibre and satellite has little or no effect on Arqiva's SMP and that the Undertakings alone do not constrain Arqiva. It considered that SMP conditions are still required to do this.

5.46 We agree with the view that competition across terrestrial, fibre and satellite has little or no effect on Arqiva's SMP, however, we consider that the Undertakings effectively constrain Arqiva in the absence of competition.

Conclusions on SMP

5.47 In light of the above, our view is that the Undertakings effectively remove Arqiva's ability to act, to an appreciable extent, independently of competitors, customers and consumers and that it therefore does not have SMP in either the DTT NA market or the radio NA market.

5.48 In particular, the Undertakings are designed to: provide certainty and transparency for customers; encourage commercial negotiation of contracts; and resolve disputes

in accordance with FRND (fair, reasonable and non-discriminatory) and cost oriented principles, in a flexible and timely manner where commercial negotiation fails.

- 5.49 With regard to the perceived concerns raised by stakeholders, we consider the Undertakings are sufficiently flexible to respond to the current challenges and demands of the market, and as such are capable of addressing the issues raised in response to the 2016 Consultation.
- 5.50 We do however, continue to recognise that Arqiva holds a strong position in the BTS market and the conclusion that Arqiva does not have SMP is conditional on the presence and effectiveness of the Undertakings.
- 5.51 While this is our assessment based on the current state of the DTT NA market and the radio NA market, we observe that should the restrictions imposed on Arqiva by the Undertakings change, it may be appropriate for us to initiate a further review of these markets to assess whether Arqiva might have SMP in light of those changes.
- 5.52 We have therefore decided to remove the SMP conditions imposed on Arqiva in 2005. After the removal of the SMP conditions we will continue to have the power to conduct a market review if we consider it to be necessary. Furthermore, stakeholders will still be able to raise disputes with the Adjudicator or concerns regarding the Undertakings with the CMA.

Annex 1

General analytical approach to market definition

Introduction

A1.1 This Annex sets out in general terms the processes that we have followed in defining the markets within this review. Section 3 sets out in more detail how we have applied our approach in each relevant market.

Approach to market definition

A1.2 In defining markets for market review purposes, our main EU law obligation is to define relevant markets appropriate to national circumstances in accordance with the principles of competition law, taking the utmost account of the 2014 Recommendation and the SMP Guidelines.

A1.3 There are two dimensions to the definition of the relevant market: the relevant products to be included within the market and the geographic extent of the market. It is often practical to define the relevant product market before exploring the geographic dimension of the market.

A1.4 While we describe below our analytical approach to market definition, it should be borne in mind that this is not a mechanical or abstract process. The approach is a dynamic one based on our overall understanding of the relevant markets, taking account of available evidence of past behaviour as well as our forward-looking analysis over the forecast period, reflecting the characteristics of the relevant retail and wholesale markets and the factors likely to influence their competitive development.

A1.5 It should therefore be recognised that the market definition exercise is not an end in itself, but, rather, a means to an end. Market definition aids the assessment of whether end-users of a product are protected by effective competition and thus whether there is a requirement for the imposition of *ex ante* regulation. It is in this light that we have conducted our market definitions in this review.

A1.6 In particular, when identifying markets that differ from those in the 2014 Recommendation, the three criteria test is applied to identify markets that are susceptible to *ex ante* regulation. The market definition exercise goes to this end.

A1.7 To re-iterate, the three criteria that must cumulatively be met are:⁵⁷

- the presence of high and non-transitory barriers to entry, which may be of a structural, legal or regulatory nature;
- a market structure which does not tend towards effective competition within the relevant time horizon (the application of this criterion involves examining the state of competition behind the barriers to entry); and

⁵⁷ As set out in point 2 of the 2014 Recommendation.

- the insufficiency of competition law alone to adequately address the market failure(s) concerned.

A1.8 If these conditions are met, it may be appropriate to impose *ex ante* regulation in the market. In formulating our proposals, we have taken utmost account of the SMP Guidelines and the 2014 Recommendation as well as the accompanying Explanatory Note.

Sequencing of our analysis

A1.9 Our usual starting point for identifying markets where there may be a requirement for the imposition of *ex ante* regulation is the definition of retail markets from a forward-looking perspective. The wholesale market is defined subsequent to this exercise being carried out.

A1.10 The analysis of retail market definition is logically prior to the definition of wholesale markets because the demand for the upstream wholesale service is a derived demand – i.e. the level of the demand for the upstream input depends on the demand for the retail service. Hence the range of available substitutes at the downstream (retail) level will inform the likely range of substitutes for the upstream (wholesale) service. This is because a rise in the price of a wholesale service which is passed through in the price of downstream retail services will cause retail customers to switch to substitute retail products, reducing demand for the wholesale input. We refer to this as an indirect constraint.

A1.11 Consequently, retail market definition and wholesale market definition should be regarded as one exercise, the ultimate purpose of which is to define those wholesale markets in the UK where there may be a requirement for the imposition of *ex ante* regulation.

Market definition

Demand-side and supply-side substitution

A1.12 Market boundaries are determined by identifying constraints on the price setting behaviour of firms.⁵⁸ There are two main constraints to consider:

- first, to what extent it is possible for a customer to substitute other services for those in question in response to a relative price increase ('demand-side substitution'); and
- second, to what extent suppliers can switch, or increase, production to supply the relevant products or services in response to a relative price increase ('supply-side substitution').

Homogeneous competitive conditions

A1.13 In certain circumstances, it may also be appropriate to define a product market by grouping together services which are subject to homogeneous competitive conditions, despite the absence of demand- and supply-side substitutability. Homogeneity of competitive conditions is chiefly used in defining geographic

⁵⁸ See paragraph 38 of the SMP Guidelines.

markets to combine, into a single market, different geographic areas in which competitive conditions are nonetheless sufficiently homogeneous. However, it can also be used in the product market definition analysis. This approach can help streamline the subsequent market power analysis by reducing the need to review multiple markets for products the provision of which is subject to homogeneous competitive conditions.

A1.14 However, combining products and services based on homogenous competition conditions, is – by definition – only appropriate where this would not alter any subsequent findings on SMP (relative to defining those markets separately and making separate market power assessments accordingly). Provided this is the case, then we consider applying this criterion to both our product and geographic market definition analysis is appropriate since market definition, as explained above, is a means to an end and the end is an assessment of the effectiveness of competition in the relevant market which involves carrying out the market power analysis.

A1.15 Our approach also takes into account the SMP Guidelines. In particular, paragraph 56 of the SMP Guidelines states that:

“According to established case-law, the relevant geographic market comprises an area in which the undertakings concerned are involved in the supply and demand of the relevant products or services, in which area the conditions of competition are similar or sufficiently homogeneous and which can be distinguished from neighbouring areas in which the prevailing conditions of competition are appreciably different...”

A1.16 Hence, subject to the relevant caveats above, where there are geographic areas where competitive conditions are sufficiently homogeneous, the definition of the relevant geographic market will include all of those areas within one market.

Relevance of existing regulation – the modified Greenfield approach

A1.17 When we conduct our analysis to define the relevant retail and wholesale markets we assume that there is no SMP regulation in place in the market under consideration or in downstream markets – the so-called ‘modified Greenfield approach’.

A1.18 To do otherwise would mean that any subsequent wholesale market power assessment would be informed by a previous retail market definition that itself relied on a wholesale regulatory remedy arising from the finding of wholesale market power. This would be a circular and incorrect approach to market definition.

Geographic market

A1.19 In addition to the product(s) to be included within a market, market definition also requires the geographic extent of the market to be specified. The geographic market is the area within which demand-side and/or supply-side substitution can take place and is defined using a similar approach to that used to define the product market. We have considered the geographic extent of each relevant market covered in this market review.

A1.20 There are a number of possible approaches to geographic market definition. One approach would be to begin with a narrowly-defined area and then consider

whether a price increase by a hypothetical monopolist in that narrowly defined area would encourage customers to switch to suppliers located outside the area (demand-side substitution) or operators outside the area to begin to offer services in the area (supply-side substitution). If demand and/or supply-side substitution is sufficient to constrain prices, then it is appropriate to expand the geographic market boundary.

- A1.21 We recognise that in certain communications (product) markets in the UK, there could be different competitive pressures in different geographic areas. In this case, we therefore have to consider whether it would be appropriate to identify separate geographic markets for some services (note also that the discussion above about homogenous competitive conditions and common pricing constraints is relevant). Defining separate markets by geographic area may be problematic because, due to the dynamic nature of communications markets, the boundary between areas where there are different competitive pressures may be unstable and change over time, rendering the market definition obsolete.
- A1.22 An alternative approach is to define geographic markets in a broader sense. This involves defining a single geographic market but recognising that this single market has local geographical characteristics. That is to say, recognising that within the single market there are geographic areas where competition is more developed than in other geographic areas. This avoids the difficulties of proliferation and instability in the definition.

Annex 2

Draft Legal Instrument

NOTIFICATION OF PROPOSALS FOR EU CONSULTATION UNDER SECTION 48B AND 80B OF THE COMMUNICATIONS ACT 2003

Revocation of SMP conditions in relation to the BTS Market

Background

A2.1 On 28 April 2005, OFCOM published a statement entitled “Broadcasting Transmission Services: a review of the market” (the “**2005 Statement**”).⁵⁹ This 2005 Statement:

- (a) identified markets for the provision of access to the mast and site network and shared or shareable antenna systems acquired, constructed or installed by each of ntl:broadcast and Crown Castle for the purpose of providing analogue and/or digital terrestrial broadcasting transmission services within the United Kingdom, to deliver broadcast content to end users on a national, regional or metropolitan basis;
- (b) made determinations that ntl:broadcast and Crown Castle had significant market power in their respective markets, and;
- (c) determined that appropriate SMP conditions should be imposed on each of ntl:broadcast and Crown Castle.

A2.2 The relevant SMP conditions were contained in a notification dated 28 April 2005 (the “**April 2005 Notification**”).

A2.3 On 31 March 2016, OFCOM published a consultation document entitled “Broadcast Transmission Services: a review of the market” (the “**March 2016 Consultation**”). Annex 7 of the March 2016 Consultation contained the notification under sections 48A and 80A of the Act in which OFCOM set out for domestic consultation its proposals to (1) identify markets, (2) make market power determinations and (3) revoke SMP services conditions. OFCOM invited responses to the March 2016 Consultation by 9 June 2016.

A2.4 A copy of the March 2016 Consultation was sent to the Secretary of State in accordance with sections 48C(1) and 81(1) of the Act.

A2.5 OFCOM received several responses to its proposals set out in the March 2016 consultation document and it has considered every such representation. The Secretary of State has not notified OFCOM of any international obligation on the United Kingdom for the purposes of sections 48A(6)(b) or 80A(9)(b) of the Act.

A2.6 The proposals set out in the March 2016 Consultation contained proposals of EU significance for the purposes of the Act. Therefore, after making such modifications of the proposals that appeared to OFCOM to be appropriate following domestic consultation, OFCOM hereby send a copy of its proposals, and a draft of the Statement accompanying

⁵⁹ http://stakeholders.ofcom.org.uk/binaries/consultations/bcast_trans_serv/statement/mastsites.pdf

this notification setting out the reasons for them, to the European Commission, BEREC and the regulatory authorities of every other member State for EU consultation, in accordance with sections 48B(2) and 80B(2) of the Act.

Proposals for identifying markets, making market power determinations and the revocation of SMP services conditions by reference to such determinations.

Market identification and market power determination proposals

A2.7 OFCOM proposes to identify the following markets for the purpose of making market power determinations:

- (a) the provision of Network Access for Digital Terrestrial Television within the United Kingdom; and
- (b) the provision of Network Access for radio broadcasters of national stations, regional/metropolitan stations and those local radio stations that purchase NA centrally and broadcast from OFCOM regulated sites within the United Kingdom.

A2.8 OFCOM proposes to determine, that no person has significant market power in either of the markets listed at A2.7 above.

Proposed revocation of SMP service conditions

A2.9 As a consequence of OFCOM's proposed determinations above, OFCOM is proposing to revoke the SMP conditions ⁶⁰ set in relation to each of ntl:broadcast and Crown Castle as set out in the April 2005 Notification, with effect from the date of any notification under sections 48(1) and 79(4) of the Act adopting the proposals set out in this notification. Section 16 of the Interpretation Act 1978 shall apply as if this revocation were a repeal of an enactment by an Act of Parliament.

OFCOM's duties and legal tests

A2.10 The effect of and OFCOM's reasons for making the determinations set out above are contained in the consultation document accompanying this notification.

A2.11 OFCOM consider that the determinations set out in this notification comply with all applicable legal tests as appropriate and relevant to them.

A2.12 In making the determinations referred to in this notification, OFCOM have:

- (a) considered and acted in accordance with its general duties set out in section 3 of the Act and the six Community requirements in section 4 of the Act;
- (b) in identifying and analysing the markets referred to in this notification, and in considering whether to make the corresponding determinations set out in this notification, OFCOM has, in accordance with section 79 of the Act, taken due account of all applicable guidelines and recommendations which have been issued or made by the European Commission in pursuance of the provisions of a European Union instrument, and which relate to market identification and analysis or the determination of what constitutes significant market power;

⁶⁰ The SMP conditions set in Annex 2 of the 2005 Broadcast Transmission Services Statement :(http://stakeholders.ofcom.org.uk/binaries/consultations/bcast_trans_serv/statement/mastsites.pdf).

- (c) in accordance with section 4A of the Act, OFCOM have also taken due account of all applicable recommendations issued by the European Commission under Article 19(1) of the Framework Directive; and
- (d) taken utmost account of any relevant opinion, recommendation, guidelines, advice or regulatory best practice adopted by BEREC in accordance with Article 3(3) of Regulation (EC) No 1211/2009.

Interpretation

A2.14 For the purposes of interpreting this notification:

- (a) except insofar as the context otherwise requires, words or expressions shall have the meaning assigned to them in this notification, and otherwise any word or expression shall have the same meaning as it has in the Act;
- (b) headings and titles shall be disregarded;
- (c) expressions cognate with those referred to in this notification shall be construed accordingly; and
- (d) the Interpretation Act 1978 (c.30) shall apply as if this notification were an Act of Parliament.

A2.15 In this notification:

- (a) “**Act**” means the Communications Act 2003 (c.21), as amended;
- (b) “**April 2005 Notification**” has the meaning given to it in paragraph A2.2 above;
- (c) the “**2005 Statement**” has the meaning given to it in paragraph A2.1 above;
- (d) the “**March 2016 Statement**” has the meaning given to it in paragraph A2.3 above;
- (e) “**Crown Castle**” means Arqiva Services Limited whose registered company number is 03196207 and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, all as defined in section 1159 of the Companies Act 2006;⁶¹
- (f) “**ntl:broadcast**” means Arqiva Limited whose registered company number is 02487597 and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, all as defined in section 1159 of the Companies Act 2006;⁶²
- (g) “**OFCOM**” means the Office of Communications as established pursuant to section 1(1) of the Office of Communications Act 2002 (c. 11).

⁶¹ Crown Castle (full name “Crown Castle UK Limited”) changed its name to National Grid Wireless Limited in 2005 and then to Arqiva Services Limited in 2008.

⁶² ntl:broadcast (full name “National Transcommunications Limited”) changed its name to Arqiva Limited in 2005.

Signed

A handwritten signature in black ink, reading "Yih-Choung Teh". The signature is written in a cursive, flowing style.

Yih-Choung Teh

A person authorised by OFCOM under paragraph 18 of the Schedule to the Office of Communications Act 2002

22 September 2016