

Cover sheet for response to an Ofcom consultation

BASIC DETAILS

Consultation title : Award of the 600 MHz spectrum band – Including request to stakeholders to notify intention to apply

To (Ofcom contact) : John Glover

Name of respondent : Arqiva Services Limited

Representing (self or organisation/s) : Organisation

Address (if not received by email) :

CONFIDENTIALITY

What do you want Ofcom to keep confidential?

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

If you want part of your response, your name or your organisation to be confidential, can Ofcom still publish a reference to the contents of your response (including, for any confidential parts, a general summary that does not disclose the specific information or enable you to be identified)? Whole response is confidential

DECLARATION

I confirm that the correspondence supplied with this cover sheet is a formal consultation response. This cover sheet requests that it is not published. If I have sent my response by email, Ofcom can disregard any standard e-mail text about not disclosing email contents and attachments.

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

Name Peter Couch Signed (if hard copy)

Head of Strategic Planning for and on behalf of Arqiva Services Limited

About Arqiva

Arqiva is the communications infrastructure and media services company operating at the heart of the broadcast and mobile communications industry and at the forefront of network solutions and services in an increasingly digital world. Arqiva provides much of the infrastructure behind television, radio and wireless communications in the UK and has a growing presence in Ireland, mainland Europe and the USA.

The company supports cellular, wireless broadband, video, voice and data solutions for public and private sector customers.

Arqiva is a founder member and shareholder of Freeview (Arqiva broadcasts all six Freeview multiplexes and is the licensed operator of two of them) and was a key launch technology partner for Freesat. We own Connect TV, the first company to launch a live IP streaming channel on Freeview. Arqiva is also the licensed operator of the Digital One – the national commercial DAB digital radio multiplex.

Arqiva operates shared radio sites throughout the UK and Ireland including masts, towers and rooftops from under 30 to over 300 metres tall as well as a number of international satellite teleports. In Arqiva WiFi we own one of the UK's largest WiFi hotspot providers that enables us to build a unique proposition for WiFi hotspot and outdoor WiFi provision in the UK.

Our major customers include the BBC, ITV, Channel 4, Channel 5, BSkyB, Classic FM, the four UK mobile operators, the Metropolitan Police, Airwave and the RNLI.

Arqiva is owned by a consortium of long-term investors and has its headquarters in Hampshire, with major UK offices in London, Buckinghamshire and Yorkshire.

Executive Summary

Arqiva welcomes the opportunity to respond to this consultation and wholly supports the policy objectives set-out in Ofcom's UHF strategy statement of November 2012¹ from which this award process has been developed. The Interim Multiplexes as proposed by Ofcom have a critical role to play in ensuring the long term sustainability of the DTT platform. As noted by Ofcom the Interim Multiplexes could positively support the benefits of DTT over the long term through a faster platform transition to more efficient standards, hence the requirement for DVB-T2 and MPEG4 in this award. Furthermore, Ofcom also note that a faster DTT platform transition to more efficient broadcast standards could be relevant:

- from a *platform sustainability* perspective, as it would contribute to the DTT platform having a sufficient amount of capacity to remain attractive to viewers, supporting its continuing public policy role in providing near-universal low cost access to PSB content;
- from a *consumer choice* perspective, as it would support DTT's ability to provide a wide range of services, including the delivery of additional services over the short to medium term; and
- from a *service coverage* perspective, as the use of more efficient transmission standards will provide greater frequency re-planning flexibility to achieve multiplex coverage levels comparable to those of today following the release of the 700 MHz band.

These aspects, as noted by Ofcom, would also enhance the DTT platform's role over the long term in sustaining platform competition, service innovation and price competition which further enhances the citizen-consumer benefit.

Whilst Arqiva welcomes Ofcom's desire to proceed with the award process as quickly as practicable, we have some reservations over the approach adopted which may result in the spectrum being awarded in such a manner that the Interim Multiplexes do not deliver the policy benefits identified by Ofcom and summarised below:

- A sustainable DTT platform, assuming clearance of 700 MHz spectrum, delivering services on an equivalent coverage and access basis to those experienced by DTT consumers today but utilising less spectrum
- A technical evolution of the platform that will afford it greater flexibility over the medium to long term to support a potential expansion in the availability of High Definition content on the platform
- A managed consumer transition of the DTT platform to enhanced technical standards
- To minimise the risk of poor frequency co-ordination outcomes during International negotiation

¹ "Securing long term benefits from scarce low frequency spectrum UHF strategy statement" dated 16 November 2012

- Offering DTT platform flexibility over the long term to potentially provide higher quality services, e.g. 4K, to ensure that the DTT platform remains a competitive alternative to other platforms

To achieve a compliant application the interested parties need to submit both a regulatory and technically compliant bid that satisfies the, relatively limited, set of conditions set-out below:

- Services to be technically compatible with existing DTT and PMSE services
- Coverage obligations of 10% of households within 1 year of licence award and at least 50% of households within two years of licence award (including a minimum of 25% coverage in each of the UK Nations)
- Services can be offered as Free-To-Air (FTA) and/or Pay, with a minimum of only one video stream (as either Standard or High Definition)
- Licence Fee / AIP
 - Single Applicant: £180,000 administrative charge applied to cover the initial term to December 2018
 - Multiple Applicants: Ofcom to run single round sealed bid auction with reserve price of £180,000 and second price rule. Minimum charge will be the reserve price
- No restrictions apply to potential applicants
- Flexibility to determine the number of Multiplexes to be delivered

Arqiva believes that it is possible to satisfy the above criteria but also fail to maximise the impact of the Interim Multiplexes on the long term sustainability of the DTT platform and hence undermine the policy objectives set out by Ofcom. In particular, a successful applicant could choose to roll-out only one multiplex to serve 50% of households without any HD video streams and remain compliant. There is clearly greater scope to extend the reach and the relevance of the Interim Multiplexes and with compliant applications submitted alongside the consultation responses we encourage Ofcom to consider the issues raised in the consultation responses alongside compliant applications in light of Ofcom's policy objectives before progressing to the sealed bid stage.

[passage below redacted for confidentiality]

Award of the 600 MHz spectrum band - Including request to stakeholders to notify intention to apply

Detailed responses to consultation questions

Q1. Do you agree with our proposal not to include Channel 36 in the spectrum to be awarded?

Yes, with one proviso.

Provided that if in due course the 700 MHz band is to be cleared of DTT services, Channel 36 is made available in advance of such a clearance to facilitate the migration of services out of the 700 MHz band. In particular the timing of availability should acknowledge the need for extra spectrum for “parking bands” during any transition.

Q2. Do you agree that the 600 MHz band should be awarded as a single ‘lot’?

Yes.

Arqiva believes that all of the 600MHz spectrum band (Channels 31-37 excluding Channel 36) should be deployed rapidly to deliver DVB-T2 / MPEG4 services to as many households as possible to maximise the policy impact of the Interim Multiplexes.

[passage below redacted for confidentiality]

Q3. Do you agree that the licence should have an end date of 2026, with a minimum term until 31 December 2018 and a clause enabling it to be revoked after that date, subject to at least 12 months notice having been given?

Yes.

Arqiva is supportive of the licence end date of 2026, with a minimum initial term to 31 December 2018.

Q4. Do you agree with the proposed service obligations for the licence, including roll-out and coverage obligations to ensure 50% UK coverage (and a minimum 25% in each UK Nation)?

No.

Arqiva has concerns that the current proposals do not go far enough in terms of maximising the positive impact of the Interim Multiplexes in maximising the long term sustainability of the DTT platform and hence delivering upon Ofcom’s stated policy objectives.

[passage below redacted for confidentiality]

Figure 1 – Network Roll-out and Service Launch Timing

	2013												2014										
	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov		
	Network Roll out																						
Mux E - Build at Risk - May 13 Build Start																							
Mux F - Build at Risk - May 13 Build Start																							
Mux E - RO timeline - July 13 Build Start																							
Mux F - RO timeline - July 13 Build Start																							

Q5. Do you agree with our proposals to apply a cost-based fee instead of AIP?

Yes.

Arqiva sees merit in sustaining the cost-based fee arrangement for the life of the licence, assuming that it continues beyond the initial term, at the currently proposed administrative fee of £36,000 p.a. (i.e. £180,000 divided over 5 years).

Q6. Do you have any other comments on the non-technical licence conditions that are being proposed?

Yes.

[passage below redacted for confidentiality]

Q7. Do you agree with the technical licence conditions we propose to include in the licence?

Yes.

Q8. Do you agree with our proposal not to restrict any party from participating in this award process?

Yes.

Although Arqiva believes that the conditions that underpin the award of the Interim Multiplexes should ensure the long term sustainability of the DTT platform.

We welcome the scope for existing multiplex operators to be able to take part as they have an inherent interest in making the Interim Multiplexes successful, in terms of expanding consumer take-up of DVB-T2 and MPEG4 equipment to facilitate a technology transition on the DTT platform. Hence DTT multiplex operators’ interests are directly aligned with Ofcom’s policy objectives to ensure that DTT is sustainable over the long term, particularly in a future scenario where the 700 MHz band is to be cleared.

[passage below redacted for confidentiality]

Q9. Do you have any comments on the proposed award process in the case of a single compliant Notice of Intention to Apply?

Arqiva welcomes the approach proposed by Ofcom in the case of a single applicant as this approach is most likely to result in early services on the Interim Multiplexes being released to market and hence the consumer benefit to be maximised.

Q10. Do you have any comments on the proposed award process in the case of more than one compliant Notice of Intention to Apply?

Yes.

As has been demonstrated by the Broadcasters and Multiplex Licence Operators, and noted by Ofcom in the award consultation section 5.25, the deployment of services in the Interim Multiplexes is not a commercial proposition but rather an opportunity to enhance the sustainability of the DTT platform over the long term:

Broadcasters and multiplex operators have consistently argued that interim use of the 600 MHz band for DTT broadcast use is likely to result in net costs rather than net benefits for them, at least in the short term.

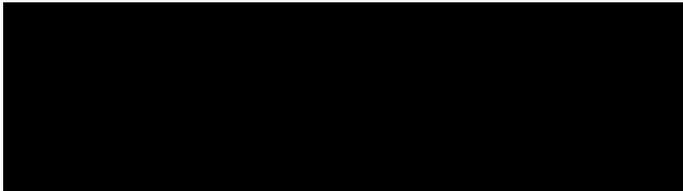
[passage below redacted for confidentiality]

Information to be provided

1. Details of Entity intending to apply

Name: *Arqiva Services Limited*

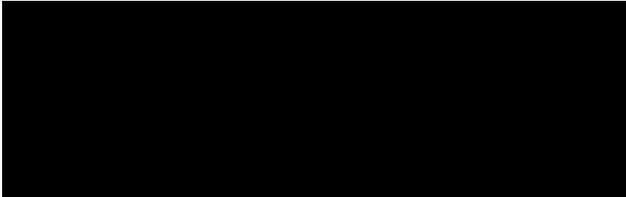
Address: *Crawley Court
Winchester
SO21 2QA*



2. Details of Entity intending to apply

Name: *Edward Thomas
Head of Legal, Compliance and Company Secretarial*

Address: *Crawley Court
Winchester
SO21 2QA*



3. Details of Entity intending to apply

Please indicate, by completing the table below, the stations and frequencies which you would propose to use if (i) you were granted the Licence and (ii) that Licence contained an obligation to comply with the coverage obligation and the roll out obligation (as defined in paragraphs A1.3.1 - 2 above).

The completed table below represents the operating parameters proposed for the interim 600MHz interim network.

Station Name (Call sign)	Grid Ref.	Layer 7					Layer 8				
		UHF Channel	ERP kW	Pol (V/H)	Antenna Height (m)	UHF Channel	ERP kW	Pol (V/H)	Antenna Height (m)		
Crystal Palace	TQ33947122	33	15.6	H	212	35	13.5	H	204		
Winter Hill	SD66051446	31	14.0	H	237	37	14.0	H	237		
Sutton Coldfield	SK11350032	33	6.4	H	264	35	8.3	H	264		
Craigkelly	NT23338724	33	2.3	H	131	34	3.0	H	131		
Black Hill	NS83116456	32	9.4	H	264	35	12.5	H	264		
Divis	NW41193098	33	4.4	H	148	34	3.4	H	148		
Pontop Pike	NZ14785270	33	9.5	H	145	34	9.5	H	145		
Rowridge	SZ44728654	31	25.0	H/V	156	37	25.0	H/V	156		
Wenvoe	ST11077416	31	4.2	H	258	37	12.2	H	258		
Bilsdale	SE55319622	31	5.0	H	296	37	5.0	H	296		
Waltham	SK80942333	31	1.4	H	260	37	1.4	H	260		
Hannington	SU52745680	32	10.0	H	142	34	5.5	H	142		
Belmont	TF21828365	33	15.4	H	342	35	15.4	H	342		
Oxford	SP56711054	31	5.8	H	161	37	5.8	H	161		
Tacolneston	TM13059572	31	10.0	H	200	37	10.0	H	200		
Ridge Hill	SO63033336	32	4.2	H	162	34	4.2	H	162		

Station Name (Call sign)	Grid Ref.	Layer 7				Layer 8			
		UHF Channel	ERP kW	Poi (V/H)	Antenna Height (m)	UHF Channel	ERP kW	Poi (V/H)	Antenna Height (m)
Emley Moor	SE22291288	32	16.7	H	279	34	16.7	H	279
Mendip	ST56434883	33	17.5	H	192	35	17.5	H	192
Sandy Heath	TL20474944	32	8.4	H	220	34	8.4	H	220
Durris	NO76418994	32	12.5	H	315	35	12.9	H	315
Angus	NO39484078	31	4.5	H	230	37	4.5	H	230
Bluebell Hill	TQ75736134	32	1.4	H	49	34	1.4	H	49
Sheffield	SK32448706	31	0.2	V	48	37	0.2	V	48
Moel-Y-Parc	SJ12337013	32	7.3	H	236	34	5.0	H	236
Caldbeck	NY29954259	32	5.4	H	331	35	3.6	H	331
Caradon Hill	SX27327079	31	10.5	H	234	37	2.5	H	234
Beacon Hill	SX85726197	33	4.3	H	100	34	1.0	H	100
Darvel	NS55753413	31	2.6	H	110	37	2.6	H	110
Fenton	SJ90294510	32	0.14	V	50	34	0.14	V	50
Fenham	NZ21676487	31	0.08	V	51	37	0.08	V	51

4 Further information in relation to the proposed equipment

If, following consideration of responses to this Consultation, you were required under the Licence to comply with the coverage obligation and the roll out obligation (as set out in paragraphs A1.3.1 - 2 above), please confirm or provide:

- 4.1 your proposals as to the position of any remote control point for a fixed station(s) (if relevant);

Not applicable

- 4.2 the type of station that you would propose to use if you were required to comply with the coverage obligation and the roll-out obligation, as set out in paragraphs A1.3.1 - 2 above;

We propose to implement the 30 site broadcast network defined in Arqiva's Interim 600MHz Multiplex Indicative Proposal dated February 2013.

- 4.3 your proposals, (to the extent not already addressed in the table above), as to the type, position, direction, signal strength, output power and signal beam width (ie. the Award of the 600 MHz spectrum band 73 antenna template showing the radiation pattern) of each antenna forming part of the proposed station(s);

As indicated in the table above, we propose to use the broadcast antennas defined in Arqiva's Interim 600MHz Multiplex Indicative Proposal dated February 2013.

- 4.4 details of which version of DVB-T2 you intend to use;

It is proposed to use DVB-T2 258QAM 2/3 Inner coding delivering 40.2Mbits/s

- 4.5 the following information for the purposes of Ofcom's Radio Site clearance process:

- (a) your proposals as to the transmission commencement date of each station you would propose to use if you were required under the Licence to comply with the coverage obligation and the roll-out obligation;

We plan to implement but improve on the roll out schedule defined in Arqiva's Interim 600MHz Multiplex Indicative Proposal dated February 2013.

- (b) your proposed methods for protecting the reception of existing DTT services, where those services are being transmitted from non-co-sited transmitters (NB, these should be network based measures only);

This is not an issue as we propose to broadcast from the 30 sites listed in Arqiva's Interim 600MHz Multiplex Indicative Proposal dated February 2013.

5 Declaration

I hereby declare that:

I am authorised to complete this Notice on behalf of Arqiva Services Limited.

I understand that Ofcom may publish the non-confidential aspects of this Notice on its website or otherwise disclose the non-confidential Intention to Apply to any person, together with Arqiva Services Limited responses to any request by Ofcom for Arqiva Services Limited to furnish it with additional information about its proposal(s). I have clearly indicated below the parts of this Notice which Arqiva Services Limited regards as confidential:

I understand that Ofcom may in certain circumstances be required by law to disclose the information contained in this Notice.

I declare that the information given by Arqiva Services Limited in this Notice is accurate and up-to-date to the best of my and Arqiva Services Limited's knowledge.

I further declare and warrant that Arqiva Services Limited is not a body that falls within the scope of Schedule 3 of the draft form licence contained in Annex 5

Signature:

A black rectangular box redacting the signature of Edward Thomas.

Name: Edward Thomas

Position: Head of Legal, Compliance and Company Secretariat

Date: 25 March 2013