



Information Notice

Award of available UHF spectrum in the urban areas of Cork, Dublin, Galway, Limerick and Waterford

Mobile TV Wireless Telegraphy Licence Award

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1 Foreword

The Commission for Communications Regulation (“ComReg”) is pleased to provide further details in relation to its proposals for the award of a licence for broadcast mobile television (“mobile TV”) in the five urban areas of Cork, Dublin, Galway, Limerick and Waterford. ComReg believes that its proposals will provide clarity in relation to the criteria for the award of a licence for broadcast mobile TV services in Ireland.

Mobile TV services are considered by many to be capable of accelerating convergence between broadcasting and telecommunications, and represent an important opportunity for innovation in electronic communications services and growth in digital broadcasting services.

It is currently only possible to award one licence for mobile TV in Ireland due to limited spectrum availability. In light of the potential competition issues arising from the issue of a single licence for mobile TV, and in light of ComReg’s statutory functions and objectives, ComReg wishes to ensure that the Licensee makes access to the mobile TV service available to third parties on a wholesale basis based on voluntary commitments that would be provided by it in the course of the licence competition. This, ComReg believes, should promote effective downstream competition in the provision of mobile TV services to consumers.

In consultation document 09/63, ComReg identified four primary aspects of such a wholesale mobile TV service, which it considered to be critical to promoting effective downstream competition. This document sets out, in greater detail, ComReg’s current understanding of these wholesale aspects and invites respondents views on same.

In addition, this document sets out ComReg’s proposals in relation to the evaluation criteria, in large part based upon these wholesale aspects. It also provides a brief update on the licence conditions and terms, the indicative timelines for the remainder of the process, and an overview of the comparative evaluation process and procedure. ComReg would welcome comments on any aspect of its proposals not later than 30 April 2010.

ComReg believes its comparative evaluation process will facilitate the development of a vibrant broadcast mobile TV service in Ireland, and looks forward to considering all the views it receives.

**John Doherty,
Commissioner.**

2 Introduction

In June 2008, ComReg commenced a process to license 8 MHz of Ultra High Frequency (“UHF”) spectrum in the five urban areas of Cork, Dublin, Galway, Limerick and Waterford (“the coverage area”) (“Consultation 08/44”).¹

In July 2009, having considered the submissions received, ComReg published its response and outlined its proposal to award a licence for this spectrum for mobile TV (“Consultation 09/63”).² In Consultation 09/63, ComReg identified and sought further views on four aspects of wholesale mobile TV services which it considered to be critical to promoting effective competition in the provision of mobile TV services to viewers in Ireland.³ Those aspects were:

- (1) access to common programme material;
- (2) provision of differentiation;
- (3) provision of information; and
- (4) recourse to negotiation and dispute resolution procedures,

commitments for which should be encouraged through the proposed licence award, particularly in the context of a single licence being awarded.

One respondent to Consultation 09/63 provided views on this matter and was supportive of ComReg’s views in relation to the four primary aspects of wholesale service provision. A non-confidential version of this respondent’s submission is at **Annex 1**.

ComReg has further analysed these primary aspects of wholesale service and identified key elements which it considers to be the substance of the provision of access to a mobile TV service on a wholesale basis, and which would be key to the proposed comparative evaluation process for the Licence award.

2.1 Scope of this document

Section 2 – sets out the scope of the document and an overview of ComReg’s functions and objectives in relation to spectrum.

Section 3 – sets out the proposed evaluation criteria, which contains additional detail to what has previously been documented in relation to this award.

¹ ComReg document 08/ 44 entitled “Award of available UHF spectrum in the urban areas of Cork, Dublin, Galway, Limerick and Waterford and related licensing options”.

² ComReg document 09/63 entitled “Response to Consultation”.

³ See Section 5.3.3 of ComReg document 09/63, entitled “Provision of Wholesale Service – ComReg’s position”.

Section 4 – sets out further details in relation to wholesale mobile TV service provision, specifically, it provides further detail in relation to access for Other Mobile TV Service Providers (“OMTSPs”) to common programme material and multiplex capacity for differentiation. Further analysis of the four primary aspects of wholesale service is set out and important elements within these aspects are identified. In ComReg’s view, the four aspects together with the important elements form the substance of the provision of access to a mobile TV service on a wholesale basis, which would be an important part of the proposed comparative evaluation process.

Section 5 – sets out a brief update on the licence terms and conditions.

Section 6 – sets out the next steps in terms of the indicative timelines for the remainder of the licensing process, and an overview of the comparative evaluation process and procedure.

There are a number of Annexes to this paper, most of which will be relevant to the final invitation to submit licence applications, which will be set out in an Information Memorandum to be published at the next stage in the licensing process (see Section 6.0). However, they are provided now, some in draft form, in order to provide further context in relation to the award process. These annexes are:

- Annex 1 – sets out the non-confidential version of a submission received to Consultation 09/63;
- Annex 2 – sets out the conditions attached to financial guarantees;
- Annex 3 – sets out a glossary of terms;
- Annex 4 – sets out observations in relation to access, differentiation, provision of information and recourse to negotiation and dispute resolution procedures in broadcast Mobile TV services in Switzerland and selected Member States; and
- Annex 5 – sets out the requirements for alternative network proposals.

While ComReg is not asking specific consultation questions in relation to this document it would nevertheless welcome comments on any aspect of the proposals set out in this document, the deadline for receipt of which is 5.00 p.m. on **30 April 2010**. Written responses should be emailed to marketframeworkconsult@comreg.ie and marked with the title of this Information Notice. Responses may alternatively be posted to Ms. Sinead Devey, Market Framework Division, Commission for Communications Regulation, Block DEF, Abbey Court, Irish Life Centre, Lower Abbey Street, Dublin 1.

2.2 Overview of ComReg’s Functions and Objectives in relation to Spectrum

2.2.1 Digital Broadcasting Services - Broadcasting Act 2009

The Broadcasting Act 2009 (“the 2009 Act”)⁴ sets out the legislative framework for future licensing of digital broadcasting services, in particular digital terrestrial television (“DTT”)

⁴ The Broadcasting Act 2009 No. 18 of 2009, was signed by the President on 15 July 2009.

services, and provides a mechanism for switch-off of analogue terrestrial television services in Ireland (“ASO”).

The 2009 Act provides for the licensing of two national digital multiplexes to Radio Telefís Éireann (“RTÉ”) and a minimum of four to the Broadcasting Authority of Ireland (“BAI”) for DTT. A licence in respect of one digital multiplex was issued to RTÉ in December 2007. It is intended, if requested by the BAI, that ComReg will issue three national multiplex licences to the BAI prior to ASO. The benefits and obligations of these licences will be passed on to third parties in multiplex contracts offered by the BAI.

Additionally, and of particular importance in relation to this matter, ComReg is empowered under the 2009 Act to issue, under the Wireless Telegraphy Acts, 1926 to 2009, multiplex licences, other than the national licences specified for RTÉ and BAI identified above, following consultation with the Minister for Communications, Energy and Natural Resources (“the Minister”) and the BAI, subject to such conditions as the BAI may consider necessary to impose in a contract entered into under Section 71 of the 2009 Act.

It is on this basis that ComReg proposes to make available the single 8MHz channel, for which a single multiplex licence may be issued, using the limited spectrum which has been identified, between 470 MHz to 750 MHz, in each of the urban areas of Cork, Dublin, Galway, Limerick and Waterford. The rollout of mobile TV to other parts of the country is one of the opportunities that may arise from spectrum released at ASO. Any such licences, however, would be awarded by means of a separate competition.

2.2.2 Spectrum – Communications Regulation Act 2002, European Common Regulatory Framework for Electronic Communications Networks and Services and Wireless Telegraphy Acts

The Communications Regulation Act 2002 (“the 2002 Act”), the Framework and Authorisation Regulations⁵, and the Wireless Telegraphy Acts set out, amongst other things, functions and objectives of ComReg that are relevant to this licence award. Apart from licensing and making regulations in relation to licences, these functions include the management of Ireland’s radio frequency spectrum in accordance with ministerial Policy Directions under Section 13, which ComReg is to carry out effectively, and in a manner serving to ensure that the allocation and assignment of radio frequencies is based on objective, transparent, non-discriminatory and proportionate criteria.

ComReg’s primary objectives in carrying out these functions in the context of electronic communications are to:

- promote competition⁶;
- contribute to the development of the internal market⁷;

⁵ European Communities (ELECTRONIC COMMUNITIES NETWORKS AND SERVICES)(FRAMEWORK) Regulations 2003 (S.I. No. 307 of 2003) (“Framework Regulations”); and, European Communities (ELECTRONIC COMMUNITIES NETWORKS AND SERVICES)(AUTHORISATION) Regulations 2003 (S.I. No. 306 of 2003) (“Authorisation Regulations”)

⁶ Section 12 (1)(a)(i) of the 2002 Act (No. 20 of 2002).

- promote the interests of users within the Community⁸; and
- ensure the efficient management and use of the radio frequency spectrum in Ireland⁹.

In relation to the objectives of the promotion of competition, contributing to the development of the internal market and promoting the interests of users within the Community, ComReg is obliged to take all reasonable measures which are aimed at achieving those objectives, including certain measures which are specified in the 2002 Act.

In carrying out its functions, ComReg is required amongst other things, to:

- (i) ensure that any measures taken by it are proportionate having regard to the objective of ensuring the efficient management and use of the radio frequency spectrum¹⁰;
- (ii) have regard to international developments with regard to electronic communications networks (“ECN”) and electronic communications services (“ECS”), associated facilities, postal services, the radio frequency spectrum and numbering¹¹; and
- (iii) take the utmost account of the desirability that the exercise of its functions aimed at achieving the objectives in relation to the provision of ECN, ECS and associated facilities does not result in discrimination in favour of or against particular types of technology for the transmission of ECS¹².

Separately, pursuant to the Framework Regulations, ComReg is obliged to promote the harmonisation of use of radio frequencies across the European Community¹³.

Where ComReg considers that any class or description of apparatus for wireless telegraphy used or to be used for the provision of an ECS or ECN ought to be subject to a licence under Section 5 of the WT Act, then decisions on the grant of such a licence (under the WT Act) are subject to the following main regulations of the Authorisation Regulations¹⁴:

- Regulation 10 - which relates to the conditions which ComReg may attach to a licence under the WT Act (in respect of apparatus used to provide an ECS or ECN); and

⁷ Section 12 (1)(a)(ii) of the 2002 Act (No. 20 of 2002).

⁸ Section 12(1)(a)(iii) of the 2002 Act (No. 20 of 2002).

⁹ Section 12(1)(b) of the 2002 Act (No. 20 of 2002).

¹⁰ Section 12(3) of the 2002 Act (No. 20 of 2002).

¹¹ Section 12(5) of the 2002 Act (No. 20 of 2002).

¹² Section 12(6) of the 2002 Act (No. 20 of 2002).

¹³ Regulation 23(2) of the Electronic Communities (Electronic Communications Networks (Framework) Regulations 2003.

¹⁴ Regulation 9(3) makes such decisions subject to Regulations 10, 11 and 18(1)(c) and any other applicable provisions of the WT Act or any relevant regulations made under same.

- Regulation 11 - which sets out procedures to be followed by ComReg when it considers that the number of licences to be issued under the WT Act (in respect of apparatus used to provide an ECS or ECN) ought to be limited¹⁵.

Regulation 11 of the Authorisation Regulations also requires ComReg, without prejudice to Section 13 and 37 of the 2002 Act, to give due weight to the need to maximise benefits for users and to facilitate the development of competition, in circumstances where it proposes to issue, pursuant to its powers under the Act of 1926, licences for a particular class or description of apparatus for wireless telegraphy for the provision of an ECN or ECS, and considers that the number of such licences ought to be limited.

In addition, Article 4 of European Commission Directive 2002/77/EC “*on competition in the markets for electronic communications networks and services*” prohibits Member States from granting exclusive or special rights of use of radio frequencies for the provision of electronic communications services.

¹⁵ Note also that the award of these licences will require Regulations to be made under section 6 of the WT Act (with the consent of the Minister for Communications Energy and Natural Resources) in order to make relevant provision for them.

3 Update on evaluation criteria details

In Section 6.1.3 of Consultation 09/63, ComReg identified, at a high level, its proposal for a comparative evaluation process in which commitments in relation to the following would be evaluated:

- Speed to market – where applicants could make proposals for rollout in advance of the 24 month rollout obligation;
- Proposals in relation to wholesale Mobile TV service provision;
- Voluntary performance bonds offered in relation to commitments made; and
- Proposals in relation to the level of spectrum access price.

It was also envisaged by ComReg that:

- A “marking scheme” would apply to the above evaluation criteria, which would place more weight on some criteria than on others;
- The nature and level of commitments offered by applicants aimed at promoting and maintaining effective competition for Mobile TV services would be an important focus in evaluating applications for this licence award. In particular, the process would involve assessing the wholesale access commitments given by applicants against the four primary aspects of a successful wholesale mobile TV service identified in greater detail in Section 4.0; and
- All evaluation criteria would be objectively justified, non-discriminatory, proportionate and transparent.

This Section and Section 4.0 set out further details of ComReg’s proposals in relation to the proposed evaluation criteria that would apply to the award of the Mobile TV licence.

3.1 Evaluation Criteria

ComReg has further considered the above evaluation criteria and is proposing the following four criteria:

1. Network commitments – including speed to market and commitments in relation to the operation management and performance of the Mobile TV network;
2. Wholesale access commitments;
3. Voluntary performance bonds; and
4. Level of spectrum access price.

Table 1.0 below sets out the proposed marking scheme based on these evaluation criteria.

Evaluation Criteria	Max number of marks
Network commitments	30
Wholesale access commitments	45
Voluntary performance bonds	10
Level of spectrum access price	15
Total	100

Table 1.0 Proposed marking scheme.

Following the selection of suitable applicants based upon an assessment of their pre-qualification questionnaires (see Section 6.0 for a breakdown of the pre-qualification

process), it is proposed that the above four criteria would be considered in the following manner.

3.1.1 Network commitments (30 points)

ComReg considers that in addition to speed to market commitments, commitments in relation to the operation, management and performance of the mobile TV network should be evaluated as part of the network commitments criterion. The reasons for including these commitments are derived from the perspective of promoting the interests of consumers and ensuring licensed spectrum is used efficiently (see Section 2.2.2). ComReg wants to ensure availability of services to consumers in the coverage area, and that the operation, management and performance of mobile TV network should be of an appropriate standard to ensure this.

In light of these considerations, ComReg will evaluate the applicant's commitment in relation to:

- i. Speed of achieving roll out of the service in the coverage area (in advance of the 24 month minimum requirement);
- ii. The performance standard to which the mobile TV network would be maintained¹⁶;
- iii. The types of performance metrics that would be used; and
- iv. The frequency that performance of the Mobile TV network would be monitored.

ComReg would award a maximum of **30 points** to an applicant based on network commitments provided by it. While the considerations outlined above will be taken into account in relation to the network commitments criterion, no sub-criteria or sub-categories of points will be used by ComReg.

3.1.2 Wholesale access commitments (45 points)

The evaluation of applicants' wholesale access commitments will be performed as follows.

Applicants will be assessed in relation to their understanding and analysis of the substance of a successful wholesale mobile TV service, which ComReg proposes would include the four primary aspects of wholesale service and the important elements within each aspect as set out in Section 4.0 (noting that this may be revised to take into account views and comments received in relation to this Information Notice). Applicants should also demonstrate their understanding of the issues involved in providing a wholesale service including access, differentiation, information and recourse to negotiation and dispute resolution procedures. Having demonstrated their understanding of a successful wholesale mobile TV service, applicants will also be provided with an opportunity to (supported by

¹⁶ ComReg considers that the transmission availability should be for 99.8% of the year, at the main transmitter sites (i.e. excluding planned transmission outages / power reductions with installation and maintenance.) This would be equivalent to a total non-availability of 17.5hours per year at each main site. If such a level of availability cannot be guaranteed, please explain what level can be achieved and how, in your view, this would be sufficient to ensure technical quality and reliability of the Mobile TV network.

the submission of relevant draft terms of an access contract) describe their specific commitments in detail and to include other additional voluntary commitments not specifically identified in Section 4.0, but which they consider would demonstrate additional transparency and non-discrimination as regards how they would provide access to common programme material or multiplex capacity to OMTSPs.

As noted above, the evaluation process also comprises the review of relevant draft provisions of an Access Contract¹⁷. In this respect, applicants will be invited in the Information Memorandum (see Section 6.0) to demonstrate how they would intend to embrace, and implement their access commitments, by submitting relevant draft terms of an Access Contract (which can take the form of excerpts from an Access Contract). The relevant draft terms will be evaluated in terms of their comprehensiveness, effectiveness and the quality of information they provide in enabling OMTSPs to obtain and maintain access to common programme content and to multiplex capacity for differentiation. It is envisaged that the relevant draft terms of an Access Contract would facilitate the provision of the type of access discussed in detail in Section 4.0 in a timely, reasonable, non-discriminatory and transparent manner.

For the avoidance of doubt, the relevant draft terms of an access contract provided by the preferred applicant will be viewed by ComReg as a voluntary commitment, which would in conformity with the Authorisation Regulations, be included in the final set of licence conditions.

ComReg proposes to award a maximum of **45 points** to an applicant based upon wholesale access commitments made by it in the course of the comparative evaluation process. Given (i) the inherent complexities in the provision of a wholesale mobile TV service, (ii) the lack of precedent in Ireland and (iii) the interrelationship between the different aspects of access and applicants' understanding of these and applicants' manifestation of their commitments in the relevant draft terms of an Access Contract, ComReg does not propose to split the 45 points between various headings or sub-criteria. Instead, ComReg proposes to take a holistic approach to the evaluation of this criterion and suggests that applicants do the same in compiling their applications. Although it is envisaged that the elements of a successful wholesale mobile TV service would include the elements described in detail in Section 4.0, it should be borne in mind that the objective of this criterion is to ensure competition in the downstream market for mobile TV. Applications that do not attempt to facilitate this objective will obtain a lower score under this criterion.

3.1.3 Evaluation of the voluntary performance bonds / bank guarantees proposal (10 points)

ComReg intends to award a maximum of **10 points** to an applicant based on voluntary performance bonds or bank guarantees ("financial guarantees") provided by it in relation to backing up its network commitments. **Annex 2** sets out the conditions which will apply to financial guarantees provided by applicants.

¹⁷ A glossary of terms is at Annex 2 where an "Access Contract" means contracts entered into by the Licensee with OMTSPs under which the right to resell mobile TV is agreed.

The form of financial guarantees provided by an applicant in relation to, for example, committing to a particular speed of rollout of the service, will be evaluated in terms of the overall attractiveness of the financial guarantee.

Such financial guarantees shall be valid for the duration of the licence from the date of its issuance. Each time the Licensee fails to deliver on a commitment made by it, and which commitment is backed up by a financial guarantee, ComReg may exercise its right to the financial guarantee and/or take whatever other actions it deems necessary to rectify the failure in accordance with the relevant provisions of the Licence.

3.1.4 Evaluation of the level of spectrum access price proposal (15 points)

The applicant shall submit a proposal in relation to a one off payment (“spectrum access price”) it would make to ComReg for obtaining this licence. ComReg would award a maximum of 15 points to the applicant which submits the highest spectrum access price using equation 1 below as follows:

$$\text{Awarded points} = 15 \times \left(\frac{AP}{AP_{max}} \right) \quad \dots \text{equation 1.}$$

where:

AP is the amount declared in the particular application; and
AP_{max} is the maximum amount, among all applications, declared in the comparative evaluation process.

4 Provision of wholesale mobile TV service

In Section 5.3.3 of Consultation 09/63, ComReg set out its reasoning for its proposal to identify four primary aspects of wholesale mobile TV service, which it considered necessary to encourage in the award process so as to avoid the exclusive grant of radio frequencies and in turn promote and facilitate the development of competition.¹⁸

The four primary aspects of a wholesale mobile TV service identified in Consultation 09/63 comprised commitments by a Licensee to provide OMTSPs the following in a timely, reasonable, non-discriminatory and transparent manner:

- Access to common programme content for reselling purposes by OMTSPs (including access, for example, to subscriber authorisation and subscriber management services). This would include commitments to properly consider all reasonable access requests from potential OMTSPs for access to the common programme content and providing wholesale services equivalent in function, quality and price to that supplied by the Licensee to its own Mobile TV operation;
- Differentiation of mobile TV through access to multiplex capacity, for each of up to four OMTSPs to provide a programme material channel for distribution to their respective subscribers. ComReg notes that such differentiation might also include differentiation of electronic programme guides (“EPGs”) (for example, with the use of graphics provided in suitable format by OMTSPs);
- All information reasonably necessary to enable OMTSPs to obtain and maintain access and differentiation; and
- Recourse to negotiation and dispute resolution procedures.

One respondent to Consultation 09/63 provided views on this matter and was supportive of ComReg’s views in relation to the four primary aspects of wholesale service provision, i.e. access to common programme material, provision of differentiation, provision of information and recourse to negotiation and dispute resolution procedures, commitments for which should be encouraged through the proposed licence award, particularly in the context of a single licence being awarded.¹⁹

ComReg remains of the view that these primary aspects of wholesale Mobile TV service provision are very important for the successful provision of the wholesale service and this section provides further details of ComReg’s understanding of these aspects.

¹⁸ ComReg remains of the view that the specific terms and conditions under which wholesale Mobile TV service would be provided should be the subject of commercial agreement/s between the mobile TV Licensee and third parties seeking access. It is proposed that commitments made by the preferred applicant during the course of the comparative evaluation process (which will include relevant draft access terms and conditions) would become licence conditions as part of the licence award process, in conformity with the relevant provisions of the Authorisation Regulations.

¹⁹ A non-confidential version of this respondent’s submission is at Annex 1.

In ComReg's view, the primary aspects, and the identified important elements within them, form the substance of the potential wholesale access commitments which could be offered by applicants in an award process and in turn included in a Licence awarded for the provision of mobile TV in the spectrum identified for that purpose.

Given the technical nature of the discussion, readers are referred to Annex 3 which contains a glossary of terms. Finally by way of further context, observations of the situation in relation to the provision of wholesale mobile TV services in other Member States are given in Annex 4.

The four primary aspects of wholesale service provision are discussed in turn below.

4.1 Access to suite of common programme material (Common Suite)

ComReg considers there to be various potential competition concerns in relation to this primary aspect, which would need to be addressed in order to prevent an exclusive right of use of radio frequencies arising. ComReg also considers that competition concerns need to be addressed in relation to the other three primary aspects identified.

Concerns in relation to access to common programme material include, amongst others:

4.1.1 Concern: Denying wholesale access to the mobile TV service for reselling purposes by OMTSPs

This could be an outright and categorical refusal, and/or a constructive refusal by the Licensee to allow OMTSPs to resell the mobile TV service.

In relation to constructive refusal practices, the Licensee would have the ability to use delaying tactics such as protracting access negotiations with OMTSPs, applying disproportionate access pre-conditions and/or unreasonable terms and conditions of access, and withholding information on the common suite of programme material.

There would be a concern therefore, that these practices would prevent OMTSPs from obtaining access to the common suite of programme material for reselling purposes, with the effect of inhibiting effective competition in the provision of mobile TV services to end users.

4.1.2 Concern: Frustrating the process through which OMTSPs gain wholesale access

ComReg considers that the Licensee would have the ability to frustrate the process through which OMTSPs gain access. It could discriminate in relation to access to subscriber authorisation and subscriber management services as regards OMTSPs.

An example of such discrimination might be an unjustified difference in the way in which the Licensee's internal access interfaces with subscriber authorisation and subscriber management services, compared to an OMTSPs' access.

Certain systems, like those that support subscriber authorisation and subscriber management services, are based on technical standards. Some of these technical standards

must be continually upgraded (to prevent unlawful / unauthorised decoding of programme material). OMTSPs would not have visibility or input into the systems used or the timing of systems' upgrades. As a result, OMTSPs may not be in a position to contribute to or make requests for upgrades to these services in order to ensure that their service is equivalent in standard and function as the Licensee's.

For example, it may be that changes to the subscriber authorisation and subscriber management systems implemented by the Licensee are not conducted at the same time or to the same standard as regards OMTSPs. This could have a negative impact on subscriber billing, communication and general business planning by OMTSPs.

4.1.3 Concern: Limiting wholesale access to the mobile TV service

The Licensee would have an ability to limit the size of the suite of common programme material available to OMTSPs.

An example of this might be where the Licensee would offer fewer programme channels to OMTSPs than it would offer to its own retail arm.

This could potentially make the Licensee's suite of programme material more attractive to potential subscribers than would OMTSPs'. As a result the business case for OMTSPs would be undermined.

A related example could be that the Licensee could change the channel lineup in the suite of common programme material and/or prevent OMTSPs from offering particular programme material by limiting access to the suite of common programme material. Conduct by the Licensee aimed at limiting or reducing access levels by removing popular programme material²⁰ without adequate prior warning could be detrimental to the ability of OMTSPs to maintain an equivalent service.

ComReg's understanding of the elements of access to a suite of common programme material

In light of the above, and of ComReg's reasoning in Section 5.3.3. of Consultation 09/63, ComReg considers there to be two important elements to be considered in relation to this aspect namely:

1. Details in relation to the suite of common programme material which would be available to OMTSPs; and
2. Details in relation to how access requests would be dealt with.

1st Element.

In relation to the details of the suite of common programme material, ComReg considers that the number of programme material channels in the suite, which would be available to

²⁰ For the purpose of this example, removing popular programme material could mean that the Licensee would withhold OMTSPs access to programme material most likely to be valued by their subscribers, and retaining it as part of their own customised programme material.

OMTSPs out of the total number of programme material channels, should be detailed by the Licensee in a transparent and non-discriminatory manner (most likely in a wholesale access reference offer, see more detail in Section 4.3 in particular, the 6th Element).

To achieve this, the Licensee could indicate the number of programme material channels to be included in the common suite and amount of bitrate to be allocated to the common suite (out of the total bitrate of the multiplex)²¹.

In addition, and to address how changes to the suite of programme material would be accommodated, the Licensee could detail its process for such changes to take place in a reasonable, transparent and non-discriminatory manner. This could for example, include a majority ruling between MTSPs. The timescales associated with such a process could also be detailed in order to demonstrate that the framework would be reasonable, non-discriminatory and transparent.

2nd Element.

In relation to details of how access requests would be dealt with, ComReg considers that the timescales for acknowledging, considering and responding to access requests (from the time that such requests would be received by the Licensee) should be detailed in a reasonable, transparent and non-discriminatory manner. ComReg also considers that the terms/conditions in relation to providing subscriber authorisation and subscriber management services should be no worse than those used within the Licensee's own enterprise and that these terms should be detailed (most likely in a wholesale access reference offer, see more detail in Section 4.3 in the description of the 6th Element).

4.2 Differentiation of retail Mobile TV service through access to multiplex capacity (facilitation of Customised Suite)

4.2.1 Concern: Exploiting ability to differentiate

This could be a refusal, or a constructive refusal to allow OMTSPs to differentiate services as regards access to multiplex capacity ("bitrate") for customised programme material, or as regards customisation of EPGs.

In relation to access to bitrate for customised programme material, the Licensee would have an ability to discriminate how much bitrate to allocate for customised programme material, or how to customise EPGs (assuming there is an EPG but that it is not a common one).

The Licensee could use conduct aimed at reducing the bitrate available for OMTSPs for differentiation, applying disproportionate access criteria and/or unreasonable terms and conditions of access to bitrate for customised programme material, and withholding information in relation to subscriber authorisation and subscriber management services in relation to customised programme material.

²¹ The Licensee could also indicate the number of permissions/agreements it would have in place with programme material providers (and the types of programme material).

An example of this could arise in the situation where OMTSPs may wish to differentiate their mobile TV service using customised programme material sourced by themselves. The Licensee however, could allocate more bitrate to accommodate its own customised programme material such that its suite of programme material would be larger than OMTSPs. This could place OMTSPs at a competitive disadvantage.

Another example of potential discriminatory behaviour might be where the Licensee provides EPG customisation to its own retail arm but discriminates as regards the updating of the schedule of programme material on the EPGs of OMTSPs. This could act to the detriment of subscribers of OMTSPs.

In general, these types of discriminatory practices could impact on the reputation of OMTSPs in closely related downstream retail markets, inhibiting effective competition.

ComReg's understanding of the elements of differentiation of a retail mobile TV service through access to multiplex capacity

In light of the above, and of ComReg's reasoning in Section 5.3.3. of Consultation 09/63, ComReg considers that there are two important elements to be considered in relation to this primary aspect namely:

3. Details in relation to the suite of customised programme material which would be available to OMTSPs; and
4. Details in relation to the EPG and the associated level of customisation which would be available to OMTSPs.

3rd Element.

In relation to this element, ComReg considers that the amount of bitrate out of the total bitrate that the Licensee would reserve in the multiplex for customised programme material should be detailed in a transparent and non-discriminatory manner.

To achieve this, ComReg considers that OMTSPs should be able to access the same amount of exclusive bitrate as the Licensee's own retail arm and that bitrate for up to four OMTSPs should be reserved.²²

In addition, ComReg also considers that details of the terms, which should be no worse than those used within the Licensee's own enterprise for providing subscriber authorisation and subscriber management services for customised programme material should be detailed (most likely in a wholesale access reference offer, see more detail in Section 4.3 in the description of the 6th Element).

²² ComReg considers that any bitrate not reserved for customised programme material should be allocated in a transparent manner to the common suite of programme material, for example, to increase the number of common programme material on the multiplex. ComReg considers that the Licensee should reserve exclusive bitrate for OMTSPs for a period of two years from the launch of the service after which any exclusive bitrate not taken up by OMTSPs should be used to expand the suite of common programme material.

4th Element.

In relation to this element, ComReg considers that the Licensee should detail in a transparent and non-discriminatory manner the level of EPG customisation which it would make available to OMTSPs, and that this should enable their EPGs to be customised to the same extent as the Licensee's own.

It also considers that EPGs should be equivalent in function.²³ To achieve this, ComReg considers that mobile TV enabled devices should receive all EPGs simultaneously, hence the amount of bitrate used for EPGs would need to be equivalent.

4.3 Provision of information and transparency

4.3.1 Concern: Raising OMTSPs' costs through a lack of information / transparency

The Licensee may have an ability to impose additional costs on OMTSPs. For example, OMTSPs would be likely to require performance metrics on the operation of the multiplex and the continuity plan for the mobile TV network, in order to allow them to view the overall mobile TV service, from a business planning and service assurance perspective.

Failure by the Licensee to provide this kind of information to OMTSPs would force OMTSPs to measure the performance of the multiplex using their own estimates. As OMTSPs would not be best placed to collect performance metrics on a network which they would not be operating, this could cause them to incur significant additional costs. This could indirectly raise the price of their retail product relative to the Licensee's, and as a result undermine competition.

Another example of raising OMTSP's costs could be where the Licensee bundles its wholesale mobile TV service with the upstream elements of other mobile products, thereby artificially reducing the cost to its own retail arm by earning higher profits as regards the wholesale price paid by OMTSPs.

The imposition of additional wholesale costs could lead to a margin squeeze whereby the vertically integrated Licensee provides its wholesale product to OMTSPs at a price that leaves them an insufficient margin to trade profitably. This would reduce the ability of OMTSPs to obtain and maintain the mobile TV service, and would generally inhibit effective competition.

4.3.2 Concern: Exploiting information asymmetries

A lack of (or even a perceived lack of) relevant information would propagate uncertainty, which might discourage OMTSPs from seeking access for reselling purposes.

For example, the Licensee might refrain from publishing and maintaining an up to date wholesale access reference offer, or the offer could be devoid of information which

²³ For example, the EPG could be an integrated EPG which could display the schedule of programme material offered in the common and customised programme material suites, and the schedule of programme material available as part of other video streaming services via third generation mobile technologies or other technologies.

OMTSPs value in order to effectively plan and invest in the service (e.g. information in relation to the business continuity plan, or service level agreements).

In addition the Licensee could choose to reduce the amount of information provided in an access reference offer, to a level sufficient for it to plan for its own retail requirements, rather than to a level to cater for potential wholesale OMTSPs' requirements.

ComReg's understanding of the elements of the provision of information and transparency

In light of the above, and of ComReg's reasoning in Section 5.3.3. of Consultation 09/63, ComReg considers that there are two important elements to be considered in relation to this primary aspect namely:

5. Details in relation to pricing; and
6. Details in relation to how commercial negotiations would be undertaken.

5th Element.

In relation to this element, ComReg considers that to promote efficient and sustainable competition, and to maximise consumer benefits, the wholesale access price offered in commercial negotiations should be transparent and non-discriminatory.

To this end, the Licensee could show that the price charged to its own retail arm would be non-discriminatory and equivalent to the price offered to OMTSPs.

6th Element.

In relation to this element, ComReg considers that, in order to ensure transparency and non-discrimination in the commercial negotiations process, the Licensee should commit, as part of its application, to producing a wholesale access reference offer.

To this end, the Licensee could commit to providing the following in the wholesale access reference offer, and could also indicate the frequency with which it would update its wholesale access reference offer:

- The performance metrics it would provide OMTSPs;
- The business continuity plan in relation to the operation of the multiplex and the mobile TV network;
- Service level agreements that would be available to OMTSPs;
- Scheme to apply service credits to OMTSPs, arising out of performance failures of the multiplex / mobile TV network; and
- Information in relation to *1st, 2nd, 3rd, 4th, 5th, 7th Elements* as set out in this section and any other information which would provide additional levels of transparency and non-discrimination as regards access for OMTSPs.

4.4 Dispute resolution (recourse to negotiation and dispute resolution procedures)

In addition, and in the event that commercial negotiations failed to deliver or maintain access in accordance with the primary aspects of wholesale service identified, ComReg would envisage the Licensee would detail an appropriate mediation or arbitration procedure which it would follow.

ComReg would also envisage that in the event of a failure to reach agreement by way of mediation, it may put in place dispute resolution procedures, in accordance with ComReg's published dispute resolution procedure (see for example, ComReg document no. 10/18, which includes Decision No. D03/10).

7. Details of mediation and dispute resolution.

7th Element

To give effect to dispute resolution procedures, ComReg considers that the Licensee, in the event of a dispute, should furnish it with all information, including accounting information, reasonably necessary to resolve the dispute.

4.5 Summary: Important elements of a wholesale mobile TV service

In summary, ComReg believes that, in order to ensure the success and efficacy of a wholesale mobile TV service, any such service should comprise four primary aspects, the provision of which should be encouraged through the making of commitments by applicants in the course of the competition process. In order to promote competition in the provision of retail mobile TV service, it is envisaged that the following primary aspects of the wholesale service would be provided by OMTSPs in a timely, reasonable, non-discriminatory and transparent manner:

- Access to common programme content for reselling purposes by OMTSPs (including access, for example, to subscriber authorisation and subscriber management services). This would include commitments to properly consider all reasonable requests from potential OMTSPs for access to the common programme content and providing wholesale services equivalent in function, quality and price to that supplied by the Licensee to its own Mobile TV operation;
- Differentiation of mobile TV through access to multiplex capacity, for each of up to four OMTSPs to provide a programme material channel for distribution to their respective subscribers. ComReg notes that such differentiation might also include differentiation of electronic programme guides for example with the use of graphics provided in suitable format by OMTSPs;
- All information reasonably necessary to enable OMTSPs to obtain and maintain access and differentiation; and
- Recourse to negotiation and dispute resolution procedures.

As discussed throughout this section, ComReg also considers the following to be important elements of potential wholesale access commitments which a prospective

Licensee would undertake to provide in order to demonstrate its commitment to the successful provision of these primary aspects²⁴:

1. Details in relation to the suite of common programme material which would be available to OMTSPs; and
2. Details in relation to how access requests would be dealt with.
3. Details in relation to the suite of exclusive programme material which would be available to OMTSPs; and
4. Details in relation to the EPG and level of customisation of it which would be available to OMTSPs.
5. Details in relation to pricing;
6. Details in relation to how commercial negotiations would be undertaken; and
7. Details of mediation and dispute resolution.

A prospective Licensee could, of course, provide additional commitments and detail in relation to its proposed provision of a wholesale mobile TV service in a transparent and non-discriminatory manner, for which it might be favourably evaluated under the relevant criterion in the comparative evaluation process.

As noted in Section 3.0 above, applicants will, as part of the evaluation process, be invited to demonstrate how they would intend to embrace, and implement their commitments, by submitting relevant draft terms of an Access Contract. The relevant draft terms of an Access Contract would be evaluated in terms of their comprehensiveness and the quality of information they would provide in relation to enabling OMTSPs to obtain and maintain access to common programme content and to multiplex capacity for differentiation. It is envisaged that the relevant draft terms of an Access Contract would facilitate the provision of the type of access discussed in detail throughout this section (Section 4.0) in a timely, reasonable, non-discriminatory and transparent manner.

For the avoidance of doubt, the relevant draft terms of an Access Contract provided by the preferred applicant will be viewed by ComReg as a voluntary commitment, which would, in conformity with the Authorisation Regulations, be included in the final set of Licence conditions.

²⁴ In recognition of the obligations placed on ComReg by Article 4 of the European Commission Directive 2002/77/EC on "competition in the markets for ECN and ECS" which prohibits Member States from granting exclusive or special rights of use of radio frequencies for the provision of ECN and ECS, ComReg considers these important elements would need to be undertaken by a prospective Licensee.

5 Update on licence terms and conditions

In Consultation 09/63, ComReg set out its position in relation to a number of licence terms and conditions. In summary, these were:

- A fixed-term licence duration of 10 years, following which the Licensee's right of use to the spectrum would **expire in full**;
- Rollout obligations to ensure that the Mobile TV service should be accessible by end-users in the 5 urban areas within 24 months; and
- Other licence conditions as set out in Sections 6.1.4 to 6.1.10 of Consultation 08/44.

ComReg remains of the view that these licence conditions would apply to any mobile TV licence granted in the proposed comparative evaluation process.

ComReg has given further consideration to applicable licence conditions and sets out below one additional proposal on which it invites responses from stakeholders.

5.1 Additional proposal: Reviews during the term of the Mobile TV licence

ComReg presently envisages at least three forms of reviews in relation to the rights and conditions of spectrum use that may be conducted during the fixed-term duration of the Mobile TV licence. These are:

- A review that would be commenced by ComReg no later than 3 years prior to licence expiry in relation to the future use of the spectrum associated with the Mobile TV licence. For the avoidance of doubt, this does **not** mean and should **not** be interpreted to mean, in any way, that there would be a renewal of the expiring licence. The purpose of this review, amongst other things, would be to provide certainty to all stakeholders as to the future use of the spectrum associated with the expiring licence, in accordance with ComReg's functions and objectives in relation to spectrum as applicable at the time of the review²⁵;
- Any other review/s that may be required to be conducted by ComReg having regard to domestic and international obligations arising during the term of the licence; and/or
- A review of the effectiveness of wholesale Mobile TV commitments/licence conditions, which may include a review to determine the relevance and/or need of such commitments/conditions in light of market and spectrum developments following the switch-off of analogue TV transmissions in the UHF spectrum band.

The above list is not exhaustive and ComReg reserves the right to conduct any other reviews in accordance with its functions and objectives.

²⁵ Matters which may be considered in this review could include, amongst others, spectrum efficiency, potential demand for the spectrum from other spectrum users, alternative uses for the spectrum and any domestic or international obligations relating to the use of the spectrum.

5.2 Update: Coverage area, transmitter stations and frequencies

In Section 7.1.2 of Consultation 08/44, ComReg set out the characteristics to determine the coverage areas of the available spectrum in Cork, Dublin, Galway, Limerick and Waterford (in particular tables 2.0 and 2.1 in Section 7.1.2).

In preparation for international frequency coordination activities (primarily with the United Kingdom), ComReg has revised these characteristics as follows:

- The coverage area can be determined using the characteristics of the transmitter stations listed in tables 1.1 and 1.2 below; and
- The potential Licensee may operate a network of transmitter stations based upon the characteristics listed in table 1.1 and table 1.2 below, subject to compliance with GE06 spectrum mask and relevant technical conditions.²⁶

Location.	Effective Radiated Power (E.R.P.)	Polarisation
Dublin	Up to 48 dBW	Horizontal
Galway	Up to 37 dBW	Vertical
Cork	Up to 47 dBW	Horizontal
Limerick	Up to 40 dBW	Horizontal
Waterford	Up to 37 dBW	Vertical

Table 1.1 Maximum ERP's and polarisation of transmissions

Site Name	Location	Latitude	Longitude	Antenna Height
Three Rock	Dublin	53° N 14' 49"	006° W 14' 11"	130 m.
Tonabroky	Galway	53° N 17' 44"	009° W 06' 44"	60 m.
Spur Hill	Cork	51° N 51' 21"	008° W 31' 00"	60 m.
Woodcock Hill	Limerick	52° N 43' 11"	008° W 41' 22"	60 m.
Waterford	Waterford	52° N 15' 48"	007° W 08' 01"	60 m

Table 1.2 Site/transmitter locations

A process of international frequency coordination has begun, based on, amongst other things, the technical characteristics set out in table 1.1 and table 1.2 above. The outcome of this process may result in additional technical characteristics being set down by ComReg before the licence award process (for example, ComReg expects to provide certainty in relation to the potential antenna templates associated with the transmitter locations, see table 1.2, as well as the frequencies to be licensed)²⁷.

While it may be possible for applicants to propose networks with alternative technical characteristics to those specified in tables 1.1 and 1.2, their proposals must not exceed the outgoing interference potential as characterised by the tables 1.1 and 1.2 (and any

²⁶ In particular, see Appendix 4.0 of ComReg Doc. Number 08/44 on "Draft technical conditions for Mobile TV Wireless Telegraphy Licence".

²⁷ It is envisaged that the frequency allocations, and final antenna template information for each of the transmission sites will be known prior to the publication of the final invitation to submit applications document. ComReg intends to set out this information once it becomes available to it, soon after international frequency co-ordination has been finalised.

additional characteristics arising out of the international frequency coordination process). Applicants may calculate the interference potential using the criteria set out in Annex 5.

6 Next steps and overview of evaluation process

6.1 Call for Input

At this point ComReg would like to invite interested parties to comment on the proposals set out in this Information Notice by 30 April 2010.

6.2 Overview of indicative timelines

Following consideration of comments received in relation to this Information Notice, ComReg will draft an Information Memorandum inviting applicants to participate in the licensing process and to submit an application for the proposed Licence. Applicants may submit only one application.

The currently envisaged licensing timelines are listed in table 1.3 below. However, ComReg reserves the right to amend these timelines.

Stage	Indicative date
Publication of this Information Notice for comment	30 March 2010
Deadline for receipt of written comments	30 April 2010
Publication of Information Memorandum inviting the submission of Applications (taking into consideration comments received in response to this Information Notice)	Quarter 3 2010
Short period for queries / clarifications in relation to Information Memorandum prior to submission of Applications, and publication of ComReg's response to queries / clarifications	Quarter 3 2010
Closing date for submission of Applications and start of comparative evaluation process	Quarter 4 2010
Announcement of results	Quarter 4 2010
ComReg issues Mobile TV Licence	To be determined by ComReg

Table 1.3 Indicative timing schedule for proposed licence award process

6.3 Overview of evaluation of applications

ComReg currently envisages inviting applicants to submit applications comprising of (a) their completed pre-qualification questionnaire ("PQQ") and (b) their application. Both the PQQ and application should be submitted as separate documents but as part of a single application at the same time.

These will be evaluated separately in accordance with the process set out below.

In broad terms, this will entail:

- Evaluation of PQQs in order to determine which applicants' applications will be pre-qualified;

- Evaluation of the application of applicants that were pre-qualified based upon evaluation of their PQQs (see, Section 6.3.1); and
- Applicants who were not pre-qualified based upon the evaluation of their PQQ would have their applications rejected and would be eliminated from the competition.

6.3.1 PQQ evaluation stage

ComReg will first consider the completed PQQs in order to determine whether an applicant has the requisite level of professional, technical and financial expertise and capacity.

Information which might be addressed in the PQQ in relation to applicants could include, amongst others, the following:

- Their technical knowledge and experience (for example, in rollout, maintenance and operation of ECNs);
- Their capability/capacity (for example, to deliver electronic communications products to a large number of end-users over a relatively wide coverage area); and
- Their organisational and financial standing (for example, in funding the rollout and operation and maintenance of mobile TV in the coverage area).

The PQQ will be used by ComReg to assess the suitability of applicants to meet the requirement of establishing, maintaining and operating a multiplex for mobile TV services in the relevant coverage area, and thus satisfy the pre-qualification requirements. The PQQ evaluation stage shall also consider, generally, evidence of applicants' ability to comply with any future licensing conditions referred to in this document. Those applicants that satisfy the requirements of the PQQ will be selected to progress to the application evaluation stage.

This selection process will be undertaken in accordance with a finalised process which will be set out in the Information Memorandum.

6.3.2 Application evaluation stage

The applications of selected applicants will then be evaluated by ComReg using the evaluation criteria (as currently set out in Sections 3.0 and 4.0, but which are subject to amendment in light of further consideration following views and comments on this Information Notice).

6.3.3 Right not to award a Licence

ComReg is conscious of the requirement not to grant an exclusive or special right of use of radio frequencies for the provision of ECS and accordingly, will reserve its right not to award the Licence if an application does not pass the PQQ evaluation stage or it does not provide attractive and credible commitments in the application evaluation stage.

Annex 1

Non-confidential response to ComReg doc. 09/63



10 September 2009

The Commission for Communications Regulation

Abbey Court

Irish Life Centre

Lower Abbey Street

Dublin 1

Ref: Award of available UHF spectrum in the urban areas of Cork, Dublin, Galway, Limerick and Waterford, ComReg Document 09/63

Dear Sir/ Madam

Further to publication of ComReg's Response to Consultation on the award of available UHF spectrum in the urban areas of Cork, Dublin, Galway, Limerick and Waterford, I note that ComReg has sought further comments on issues raised within the Consultation and, in particular, on provision of wholesale services.

Provision of wholesale Services

With respect to the provision of wholesale services, it should be noted that in Meteor's initial Response to Consultation, support was given for the inclusion of wholesale service obligations. To this end, Meteor accepts the four primary aspects of wholesale service provision outlined, i.e.: access to common programme content; differentiation of the mobile TV service; provision of information; and recourse to negotiation and dispute resolution. Meteor is, therefore, supportive of the proposal to ensure that the licensee is bound to develop an appropriate service level



agreement, offer a wholesale access price that is reasonable, non-discriminatory and objectively justified, and publish a wholesale access reference offer.

One concern, however, relates to access to common programme content and how this is reflected in the development of appropriate service level agreements. As ComReg notes, a framework is likely to be required to address how common content could be changed as well as how any programme content supplied by Other Mobile TV Service Providers (OMTSPs) could be managed if changes were requested. Whilst Meteor is supportive of this requirement, it is important to note that any service level agreement should also explicitly ensure access by OMTSPs to content on a non-discriminatory basis, with such access ensured in a timely manner. Meteor would, therefore, like to see this reflected in the commitments to which any licensee is bound.

Licence Duration

It is important also to reiterate objection to the proposed licence duration of 10 years. As outlined in the submission to Consultation Document 08/44 Meteor does not accept that a single licence of 10 years allows sufficient time for a return on investment. Given the debate on opening access, promotion of long-term investment and development of sustainable competition, the emphasis that ComReg gives to finite licensing as a regulatory tool is misplaced. Meteor would also contend that such licensing practices are regressive and would support a move towards licensing whereby operators could enjoy a minimum term with rolling periods thereafter.

Licence Fees

The methodology used to determine applicable fees is disproportionate. In proposing an annual licence fee of €340,000, ComReg has applied a simplistic methodology which, when compared to licence fees applied to DTT, is also disproportionately weighted against any operator wishing to provide a mobile TV service. Meteor would ask that further consideration is given to the development of an alternative methodology for fee calculation, one that takes into consideration the long-term investment required and development risks. Meteor would ask for further consultation with all interested parties on this issue.



Frequency Assignment

In both the initial consultation document 08/44 and the Response to Consultation Document 09/63 ComReg has stipulated that a 8MHz spectrum channel in the UHF spectrum band between 470 MHz and 750 MHz will be awarded. Meteor is pleased that this ComReg has decided to award a Mobile TV Wireless Telegraphy licence, however, would seek greater clarification on the exact frequency that will be made available, as propagation and indoor penetration would vary dependent on the assignment. I appreciate that all such issues may be addressed during the more detailed award process, however, Meteor would urge clarification in advance to facilitate planning.

If you would like to discuss any issue raised, please do not hesitate to contact me.

Best regards

Ciara Farren

Spectrum and EU Affairs Manager

Annex 2

Conditions of financial guarantees

Performance and financial guarantees

[In this part, with respect to voluntary network commitments made in relation to the following:

- *operation, management, performance and rollout of the mobile TV service (as committed to by the applicant)*

the Applicant will be invited to detail any financial guarantees to which it intends to commit to in order to back-up its voluntary network commitments.]

The following shall apply to any voluntary financial guarantees incorporated into the licence:

1. In the event that the Licensee fails to meet the voluntary network commitments which are backed-up with a financial guarantee, the amounts guaranteed will be payable on demand to ComReg;
2. Payment of the amount of the financial commitment to ComReg shall be guaranteed by means of a bond obtained by the licensee from a financial institution acceptable to ComReg, or by means of a cash deposit to an account nominated and controlled by ComReg.
3. The Licensee shall, before the licence commencement date, put in place a programme to measure and monitor compliance with the voluntary network commitments. The programme shall include the reporting procedures to the ComReg and shall be in such form as agreed by ComReg or as may be specified by the ComReg from time to time.
4. Collection or payment of the performance bond set out above shall not affect ComReg's powers to take other measures as it deems necessary to ensure compliance with the voluntary network conditions.

Annex 3

Glossary of terms

“**Access**” means the provision of Mobile TV by the Licensee to Other Mobile TV Service Providers for reselling purposes.

“**Access Contract**” means contracts entered into by the Licensee with Other Mobile TV Service Providers under which the right to resell mobile TV is agreed.

“**Authorised subscriber**” means a subscriber whose decryption of mobile TV is controlled remotely by a Mobile TV Service Provider;

“**Bitrate**” means the available spectrum bandwidth given in terms of number of bits per second over the mobile TV network;

“**Conditional Access**” means controlling mobile TV for consumption by only authorised subscribers. This includes encryption services, that is to say, any encryption of signals for mobile TV, and the conveyance of encryption information.

“**Decryption**” means a method of decoding programme material, such that it can be consumed by authorised subscribers;

“**Electronic Programme Guide (EPG)**” means a graphical user interface displayed on the screen of a mobile TV enabled device listing the schedule of programme material and related and other data transmitted over the mobile TV network;

“**Encryption**” means a method of encoding programme material, such that it is only available for consumption by authorised subscribers;

“**Licensee**” means the holder of a licence issued pursuant to the Mobile TV Wireless Telegraphy Regulations;

“**Mobile TV**” means the suite of programme material and related and other data carried over the mobile TV network;

“**Mobile TV Enabled Device**” means a device which is capable of receiving and decrypting mobile TV, and displaying it on a screen;

“**Mobile TV Network**” means the systems, products, services and facilities such as video, audio and data encoding, and multiplexing used to provide mobile TV by means of a multiplex;

“**Mobile TV Service Provider (MTSP)**” means an undertaking concerned with the provision of mobile TV to a subscriber;

“Multiplex” means an electronic system which combines programme material and related and other data in a digital form and the transmission of that material and data so combined by means of wireless telegraphy directly or indirectly for reception by the general public;

“Other Mobile TV Service Providers (OMTSPs)” means an entity, other than the Licensee, providing mobile TV to an authorised subscriber;

“Programme Material” means audio-visual material or audio material and includes advertisements and material which, when broadcast, will constitute a direct offer to the public for the sale or supply to them of goods or services;

“Service Credit” means a credit given to Other Mobile TV Service Providers by the Licensee arising from mobile TV falling below the agreed access or performance levels, which may be negotiated in service level agreements as part of access contracts.

“Subscriber” means any natural person who is acting for purposes which are outside his or her trade, business or profession to subscribe to mobile TV;

“Subscriber Authorisation Services” means to actuate or control remotely the decryption of mobile TV or the decryption of initial broadcast of messages connected with the aforesaid;

“Subscriber Management Services” means the preparation and/or supply to subscribers of essential components, or the preparation from subscribers orders of instruction for authorisation signals, for transmission to decrypting or other such devices to decrypt mobile TV;

“Suite of Common Programme Material (Common Suite)” means mobile TV offered to subscribers via bitrate not allocated to the customised suite. The common suite will include programme material, and related and other data which is multiplexed by the Licensee and which is made available to Other Mobile TV Service Providers;

“Suite of Customised Programme Material (Customised Suite)” means a mobile TV service offered to subscribers via a part of the bitrate allocated and distributed by the Licensee between Other Mobile TV Service Providers;

“Wholesale Access Reference Offer” means a standard pre-determined offer for wholesale mobile TV;

“Wholesale Mobile TV” means access for OMTSPs to the common suite and to bitrate for a customised suite in accordance with commitments which the undertaking obtaining the licence has made in the course of a competitive or comparative analysis procedure;

Annex 4

Observations in relation to access, differentiation , information and dispute resolution in selected other countries

ComReg has reviewed available public information in relation to wholesale mobile TV services in Switzerland and other Member States, and summarises this here for additional context.

It is clear from the approaches taken by other Member States that there are a range of ways to refrain from granting an exclusive right of use of radio frequencies for mobile TV in accordance with the common regulatory framework.

Finland

A network licence for broadcast mobile TV services was granted by the Finnish government authorising the operator to use and sell capacity in the mobile TV multiplex but refrain from retailing itself (a wholesale only model).

A reference offer however, which is non-discriminatory and transparent, was required to be published by the operator. The offer also sets out the cost accounting methodology to be used for tariff setting to demonstrate non-discrimination and transparency.

France

French law requires that authorisations granted to multiplex operators provide that the use of frequencies must be done under equitable and non-discriminatory terms. However, the launch of broadcast mobile TV services in France has been delayed and ComReg has therefore, not had visibility as to how these conditions would apply in practice.

A beauty contest was used by the regulator to award the licence, and it was judged on the criterion of diversity of programme material to be carried on the multiplex. Whilst there are no details published as to how changes to the programme material carried on the multiplex would be carried out, ComReg expects that as the contest was judged on programme material content, that content regulator would have a role in determining / approving changes to the suite of programme material.

There are no details available in relation to exclusive programme material or whether there would be any such form of differentiation of services between MTSPs.

Italy

The context in relation to broadcast mobile TV services is very different in Italy because there is more than one licence. As a result, there does not appear to be any details in relation to access set out in law. However, ComReg understands that differentiation of programme material and EPGs is a feature of broadcast mobile TV services in Italy.

Switzerland

There is a high level licence condition in relation to non-discrimination and transparency, which the Licensee must comply with in relation to dealing with OMTSPs. There are however, no further details set down in law in relation to how this works in practice (see

for example, condition number 2.3 “Diffusion” of the Licence no. 123456, available to view at the Swiss regulator’s website at www.bakom.ch).

Poland

It was a prerequisite of the competition for broadcast mobile TV in Poland that a wholesale access reference offer would be made available by the Licensee on terms not worse than those used within the Licensee’s own enterprise. Therefore, the operator had an obligation to set terms which could not be less than those it would offer to its own enterprise (see Licence condition number 7 in the offer template, which can be found at http://www.en.uk.gov.pl/gallery/94/944/documentation_beauty_contest_dvbh.pdf)

The beauty contest was evaluated according to the criterion of the assurance of conditions for competition in the degree of diversification of suppliers of programme material (note, not the diversification of OMTSPs). The wholesale access reference offer, which has now been established by the Licensee (Info TV, www.infotvm.pl) includes 37 TV and radio programme material for distribution by MTSPs. (source http://www.infotvm.pl/pl/pliki/Oferta_hurtowa_DVB_H_INFO_TV_FM.pdf).

Annex 5

Requirements for alternative network proposals

If an applicant proposes alternative transmitter sites, as compared to those outlined in Section 5.0, the transmissions of alternative transmitter sites must:

- not exceed the interference potential of the sites as specified in Section 5.0 and the relevant international coordination agreements; and
- provide equivalent coverage to the sites specified in Section 5.0.

In this case the applicant must demonstrate that the alternative sites proposed is equivalent, by providing evidence with coverage prediction maps generated using an acceptable methodology. The parameters to be used in generating the coverage predictions submitted with such an application must be in the following format:

- Prediction model: as specified in ITU-R 525/526 and ITU-R 526
- Clutter attenuation: Deygout plus subpath attenuations as ITU-R 526 with no tropo-scattering.
- Resolution of the terrain database shall be at least 200m. An earth radius of 8500km shall be used for both land and sea coverage for 50% of the time.
- Receive antenna height: 1.5m above ground level.
- The minimum field strength for portable indoor (PI) and mobile (MO) reception, for the chosen modulation and code rate should be as per Appendix A from ComReg Document 08/44b for the specified channel in each urban area. The above field strengths are to be shown and identified on the palette of any coverage maps supplied with an application. For example the field strengths for the following channels would be:

Modulation/Code Rate	QPSK ³ / ₄		16-QAM ³ / ₄	
Reception Mode	PI	MO	PI	MO
Channel	dB μ V/m			
21	78.80	69.80	85.40	76.40
26	79.86	70.86	86.46	77.46
46	83.39	74.39	89.99	80.99

The proposed alternative sites must be submitted using the table headings:

Site Name

Frequency (MHz)

Longitude (4DMS)

Latitude (4DMS)

Site height (m)

Antenna Height (m)

ERP (dBW)

Polarisation

Modulation

Code rate

Guard Interval

Antenna Diagram 0°-350° in 10° steps.