



Broadcasting Commission of Ireland
Coimisiún Craolacháin na hÉireann

Guide to Submissions for DTT Multiplex Contracts

**Second edition
April 2008**

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The Broadcasting Commission of Ireland (“the BCI”) reserves the right to correct or clarify any part of the *Guide to Submissions for DTT Multiplex Applicants* (“the *Guide to Submissions*” or “*Guide*”) at any stage before the closing date for applications. For information, the *Guide to Submissions* is comprised of this document (Parts 1 – 3), the annexes to this document, and the *Microsoft Excel* workbook that may be downloaded from the BCI’s website (as outlined in this document).

Any such corrections, clarifications or supplementary information will be notified by the BCI to all parties who have registered for the *Guide* on the BCI’s website (<http://www.bci.ie>).

All queries regarding this *Guide* should be emailed, by Thursday April 24th 2008, at the latest, to:

Dr. Caroline Smyth

Broadcasting Commission of Ireland

Email: csmyth@bci.ie

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1. General

The Broadcasting Commission of Ireland (“the BCI”), in accordance with the functions conferred on it by *section 4* of the Broadcasting (Amendment) Act 2007 (“the 2007 Act”), and the provisions of *section 8* of the 2007 Act, hereby invites applications for multiplex contracts, from parties interested in establishing and maintaining one or more of three national Digital Terrestrial Television (DTT) Multiplexes. Each contract shall be for a period of twelve (12) years.

The maximum coverage area in which programme material and related and other data shall be broadcast pursuant to the contract shall be the whole of the State. However, the Commission specifies that the minimum coverage area in which programme material and related and other data should be broadcast shall be to at least ninety percent (90%) of the whole community in the State at, or immediately following, Analogue Switch-off (ASO). Such minimum coverage area is subject to the requirement that every effort is made by the person to whom the contract is awarded to ensure that the programme material and related and other data is broadcast in as much of the maximum coverage area as is practicable.

Each DTT multiplex contract that may be awarded shall be in respect of fixed and portable reception (excluding DVB-H technology).

The attention of applicants is drawn to the provisions of the 2007 Act and, in particular, to *section 9*, which includes matters to which the BCI shall have regard in determining applications for the award of contracts, as well as to *section 10*, which sets out certain contractual conditions that may be imposed on a successful applicant. Applicants should also have regard to the provisions of the *BCI DTT Multiplex Licensing Policy (2008)*, a copy of which is available online at <http://www.bci.ie>.

Applications must be made in accordance with the format prescribed and accompanied by the fee specified in this *Guide to Submissions*. This *Guide* also contains other relevant information for applicants.

An applicant may apply for one, two, or all three, multiplex contract(s). Conditional applications shall also be considered in accordance with procedures set out in this *Guide*.

Applicants should note that the BCI reserves the right not to award one or more contracts.

The closing date for receipt of applications is **12 noon, on Friday, 2nd May 2008**.

Key Dates:

- Deadline for receipt of applications: 12 noon, Friday 2nd May, 2008.
- For the purposes of making an application, applicants should assume that contracts shall be awarded in July, 2008.
- Latest date for submitting queries concerning the *Guide to Submissions*: Thursday, April 24th 2008.
- Proposed date for public hearing: Monday, 12th May, 2008.
- Commencement of transmission: no fixed date shall be specified by the Commission.
- ASO: further to the provisions of *section 11* of the 2007 Act, the Minister may decide the date for analogue switch-off. For the purposes of making

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an application for a DTT multiplex contract, applicants should assume a switch-off date of 31st December, 2012.

2. Information for Applicants

2.1. Introduction

The Broadcasting (Amendment) Act 2007 (“the 2007 Act”) sets the framework by which the BCI invites applications for contracts for television multiplexes. The 2007 Act sets certain broad objectives for DTT and these have informed the development of the BCI’s policy for licensing DTT multiplexes, as set out in *BCI DTT Multiplex Licensing Policy (2008)*. Applicants should have regard to the 2007 Act, the 2008 DTT policy document, and the objectives and requirements set out therein, when preparing their applications.

In particular, there are certain core requirements that are considered central to the establishment, maintenance and operation of the DTT multiplexes individually and the success of the DTT platform as a whole, such as transmission coverage, DTT receiver functionality and proportion of programme content; other matters are highly desirable in the context of this DTT licensing process. Applicants are invited to explain in their applications how they will satisfy such requirements. Further details are given below.

Each of the three available multiplexes will be subject to a separate contract. An applicant may apply for one, two or all three multiplex contracts but a **separate application must be submitted for each contract**.

The BCI will consider multiple applications from the same applicant and the applicant may make an application conditional on the outcome of other application(s). For example, an applicant may wish to apply to operate only all three multiplexes. The arrangements for making multiple and/or conditional applications are explained below.

Anyone wishing to apply for a multiplex contract must submit to the BCI an application in accordance with the format and procedure described below. The BCI reserves the right to disqualify any application that does not comply with the specified requirements.

An application(s) must be submitted with the appropriate application fee(s), as described below.

The Commission will determine the most suitable applicant to be awarded each multiplex contract by an evaluation of the applications, as described below. Its evaluation will be made against several criteria as set down in the 2007 Act and the Commission will take account, amongst other things, of the commitment shown in applications to meet or, indeed, exceed certain core requirements. It will also take due account within the criteria framework of the implications of any multiple and/or conditional applications. Further details are provided below.

The *BCI Ownership and Control Policy (2008)* will be relevant to the consideration of applications, and in determining the most suitable applicant for the award of a multiplex contract.

The three multiplexes have been labelled Multiplex A, Multiplex B and Multiplex C for convenience. They are considered to be identical and will be allocated to the successful applicant(s) by the BCI at the time of the contract award. It is not

necessary for an applicant to stipulate which multiplex(es) it is applying for by name.

The commitments made by successful applicants shall be reflected in the DTT multiplex contracts, as considered appropriate by the Commission.

The Commission reserves the right not to award contracts for one or more multiplexes if it considers that there is/are no suitable applicant(s).

2.2. Requirements of Applications

The *BCI DTT Multiplex Licensing Policy 2008* sets out a number of DTT-related objectives and includes a number of specific requirements that multiplex contractors are expected to satisfy. Certain core requirements are introduced below. However, applicants should have regard to the aforementioned *DTT Policy* document, including the objectives of the policy and the requirements contained therein when preparing their applications.

When the Commission evaluates each application, it shall have regard to an applicant's proposals concerning both the core requirements and a range of other requirements and/or objectives. The BCI not only invites applicants to commit to meeting certain minimum expectations but encourages them to commit to exceed them.

2.2.1. Network Coverage

The three contracts advertised are for **national** television multiplexes and the 2007 Act requires that, in so far as it is reasonably practicable, they shall be capable of being transmitted by digital terrestrial means to the whole community in the State ("the maximum coverage area"). However, the Commission specifies that the minimum coverage area in which programme material and related and other data should be broadcast shall be to at least ninety percent (90%) of the population of the State, at, or immediately following, Analogue Switch-Off (ASO). The BCI requires an applicant to submit coverage prediction proposals (within defined coverage prediction parameters, see section 2.7.5 below) and details of the population data applied which demonstrates how the minimum coverage area will be achieved.

Further to *section 8(6)* of the 2007 Act, the BCI requires that every effort is made by the person to whom a contract is awarded to ensure that the programme material and related and other data on a multiplex is broadcast in as much of the maximum coverage area as is practicable. For this reason, the BCI encourages proposals that provide a level of predicted population coverage, after ASO and over the period of the contract, that is higher than the minimum ninety percent (90%) requirement.

In addition, applicants are encouraged to maximise network coverage in advance of ASO, in so far as is reasonably practicable.

2.2.2. DTT Receivers (including Set-Top Boxes)

In order to ensure that the public may access DTT as a replacement service for analogue television broadcasting, it is essential that a low-cost, basic specification receiver is widely available, on a timely basis. In order to address this need, the BCI considers that a national, minimum technical specification for DTT receivers is of key importance to the successful development of DTT. To this end, the BCI acknowledges the development work of the DTT Pilot Stakeholders Group (PSG) in developing an agreed draft national minimum technical specification for DTT receivers.

At the date of publication of this *Guide*, this technical specification was reaching finalisation. However, in order to meet the required timeframe and objectives for the roll-out of DTT, the BCI reserves its position to adopt a different strategy for the development of a minimum technical specification, should the need arise. Any change to the BCI's strategy in this regard will be announced publicly and will be notified to parties who have registered for the *Guide to Submissions*.

The BCI is of the view that the national minimum technical specification for DTT receivers should have the functionality set out below. In addition, any proprietary DTT receiver/set-top box proposed by an applicant for a DTT multiplex contract must have the following functionality:

- be capable of receiving and displaying Free-to-Air (FTA) content from RTÉ and BCI-licensed multiplexes;
- support MPEG 4 high definition compression format;
- support MHEG 5-capable middleware applications; and
- enable sub-titling.

Where an applicant does not envisage the deployment of a proprietary DTT receiver/set-top box, the BCI would wish to see that the same minimum functionality was catered for in the technical system proposals.

The BCI strongly endorses the principle of interoperability, across the DTT platform, in the public and consumer interest. Ideally, receivers should, to the greatest extent possible, facilitate interoperability between all multiplexes both at the launch of DTT and into the future.

Applicants are invited to put forward their proposals for meeting the above requirements.

2.2.3. Level, Range and Type of Television Content

The 2007 Act defines a television multiplex as “a multiplex in which the programme material is predominantly television”. The precise level of television programme content required to be carried on DTT multiplexes, therefore, is a matter for determination by the BCI. It is the position of the BCI that “predominantly” shall be interpreted as requiring a minimum of eighty percent (80%) television programme content and programme-related content on a multiplex. An applicant for a DTT multiplex contract may exceed this level if it so wishes.

Applicants are invited to provide a detailed outline of their proposals with regard to the range and type of programme material, and to demonstrate how they will meet the above requirements.

2.2.4. DTT Champion

With regard to the promotion of the DTT platform, it is the view of the BCI that a DTT ‘champion’, whilst not obligatory, is highly desirable, if not essential, to the success of the platform. Given the importance of a coherent approach to the promotion of the platform, it is the BCI’s expectation that the successful applicant(s) for commercial DTT multiplex contracts shall work together, and in co-operation with RTÉ, to promote the DTT platform.

Applicants are invited to set out their proposals for such promotion/co-operation both at the commencement of the project and over the duration of the DTT multiplex contract.

2.3. *Multiple and Conditional Applications*

An applicant may apply for more than one DTT television multiplex contract.

Each DTT television multiplex contract that an applicant wishes to apply for must be the subject of a separate application. It is not necessary for an applicant to stipulate a particular multiplex (Multiplex A, B or C) when applying since the multiplexes are considered to be equivalent to one another. The BCI will allocate the notional names to the successful applications at the time of awarding the contract(s).

An applicant may wish to make an individual application conditional on the outcome of one or more of its other applications. For example, the applicant may be interested only in operating all three multiplexes. It could, therefore, make each of its three applications conditional on the other two being successful. Or, it could be the case that an applicant may wish to make its application for a multiplex conditional on another, named, party being awarded a second or third contract.

The details of any conditions attached to an application must be included in the application, making full and clear reference, where appropriate, to the associated applicant and its application(s) (see section 3.1).

If an applicant is interested only in applying for two or three multiplexes as part of a combined business operation, and its applications are conditional on this basis, then it may base the information in its applications on the combined operation. For example, the business plan may reflect the operation of the two or three multiplexes combined, as appropriate, not just the single multiplex that is the subject of each application. In the case of conditional applications **only**, to avoid unnecessary duplication, any substantive body of information that is common to two or more applications need only be provided once and be cross-referenced, as appropriate.

For the avoidance of doubt, if an applicant wishes to apply for a multiplex as part of a combined operation (i.e. two or three mutually-dependent applications) and as a single application (i.e. a fallback option), then the information in the conditional

applications would need to reflect the combined multiplex operation and there would need to be a separate submission (i.e. a separate application and accompanying application fee) relating to the operation of a single multiplex. In all cases, the onus is on the applicant(s) to ensure that complete application(s) is/are submitted and that any reliance on cross-referencing is clear and complete.

2.4. Ownership and Control

The *BCI Ownership & Control Policy (2008)* will be relevant to the consideration of applications and in determining the most suitable applicant for the award of a multiplex contract.

As explained more fully below, the BCI is required to have regard to a number of criteria when assessing applicants for multiplex contracts. For example, *section 9(2)(a)* of the 2007 Act requires the Commission to consider the character of the applicant. *Section 9(2)(b)* requires the Commission to have regard to the experience, expertise and financial resources available to the applicant.

Section 9(2)(h) provides that the Commission shall have regard to any other matters which it considers to be necessary to secure the orderly establishment, maintenance and operation of multiplexes. In addition, *section 4(6)* states that the Commission shall have all such powers as are necessary for or incidental to the performance of its functions under the 2007 Act. Further to these provisions, the BCI will have regard to media concentration considerations.

Additional information may be found in the *BCI DTT Multiplex Licensing Policy (2008)*. An applicant should have regard to these policies when preparing his application.

2.5. Application Procedure

2.5.1. Obtaining the Guide to Submissions

Anyone wishing to obtain the *Guide to Submissions* should register with the BCI in order to ensure that they receive any subsequently released information providing clarification and/or corrections to the *Guide* and to receive details of the BCI's responses to any queries received from interested parties. There are no obligations associated with registration.

In order to register, interested parties must visit the BCI's website (www.bci.ie) and complete the online registration form; this will provide them with immediate access to the *Guide to Submissions* (including the templates in a *Microsoft Excel* workbook).

All correspondence between the BCI and a potential applicant will be through the contact person (or his/her substitute) so designated.

2.5.2. Queries Arising from the *Guide to Submissions*

Interested parties who require clarification on matters covered in the *Guide to Submissions* may submit a query via email to csmyth@bci.ie. Only queries submitted in this way shall be accepted.

The BCI shall use its best endeavours to respond to any query within seven working days, and shall make available the queries it receives, and its responses, to any parties that have registered in order to obtain the *Guide to Submissions*. Subject to the provisions of the Freedom of Information Act, 1997, as amended, and any other legal obligations, the BCI will use its best endeavours not to disclose the identity of the party posing a query.

To ensure that all parties have the same opportunity to consider the BCI's responses, the final deadline for the submission of queries is **Thursday, 24th April, 2008**. Queries received after this deadline will not be answered.

2.5.3. Submission of Application

The application must be submitted in the format prescribed in Part 3 of this *Guide* and include **all** of the information requested therein. The BCI reserves the right to disqualify any application that fails to comply with the prescribed format.

The application must be typed in letter quality type-face, or printed and presented in an **A4** format. It must also be bound, by comb or wire, between covers. All pages must be numbered.

Financial projections and supporting market data shall be submitted **both** in printed tabular form as part of the main application document and as a series of *Microsoft Excel* worksheets within a single workbook, using the templates provided by the BCI.

The BCI encourages the submission of applications that are clear, concise and simple in layout and style. The BCI discourages applicants from submitting overly elaborate applications, including promotional material in printed or video format. This does not apply to the submission of demonstration material, which must be submitted in CD format. Where necessary, applications may be supplemented by appendices, providing detailed statistical and other back-up information.

Applicants are strongly encouraged to include all key information within the main body of the application and to place only supplementary information in appendices. **Appendices should be clearly numbered, cross-referenced from the main application document and bound, preferably, in a single volume.** The procedure for submitting the application is set out below.

Applicants are required to submit twenty (**20**) copies of their application, including twenty (**20**) copies of any appendices and/or demonstration material. In addition, they must provide **one electronic copy** of the same application, in PDF format, along with the completed *Microsoft Excel* worksheets and transmission coverage plots on one or more, virus-free CDs (labelled with the applicant's name and a cross-reference to the main application document and numbered "1 of N", "2 of N" etc where N represents the number of CDs).

Applications may be submitted in either Irish or English but **at least one copy** of the application and all supporting material must be submitted in English.

The deadline for submitting a qualifying application to the BCI is **12 noon on Friday, 2nd May, 2008**. Applications which are received beyond this deadline shall not be accepted for consideration by the Commission.

To qualify, each application must meet the formal requirements as set out by the Commission, as follows:

- It must be labelled: **APPLICATION: DTT MULTIPLEX CONTRACT**
- It must be delivered by 12 noon on Friday, 2nd May 2008, to the address below:

**f.a.o. Dr. Caroline Smyth
The Broadcasting Commission of Ireland
2-5 Warrington Place
Dublin 2**

- It must comprise of a main application completed as per the Application Format specified in this *Guide*¹ and any supporting documents to include relevant appendices, the CD(s) containing an electronic version of the application document, *Microsoft Excel* worksheets and transmission coverage plots. The main application should be contained in a single package, labelled and addressed as set out above and clearly marked on the outside with the applicant's name and address. This will be identified as the "master application".
- It must also include the remaining nineteen (19) copies of the main application and the supporting documents (as set out above) in one or more separate, sealed packages, addressed and labelled as stated above and clearly marked on the outside with the applicant's name and address.
- It must include payment of the application fee by way of a cheque or bank draft made payable to "The Broadcasting Commission of Ireland".

The package containing the master application should be handed in person, by the applicant or its representative, to the BCI's Receiving Officer for checking. The Receiving Officer will record brief details of all of the items contained in the package and issue a written receipt to the said person². If the application subsequently is found to be missing any of the components, it may be deemed not to qualify by the Executive and will not be the subject of an evaluation report. The Commission will only consider qualifying applications.

The master application will be used as reference, in due course and if appropriate, for contractual purposes.

Any information contained within the packages containing the nineteen (19) copy applications that is not also contained within the master application will be disregarded by the Commission.

¹ The application may, as determined appropriate by the applicant, also contain one or more CDs containing demonstration material and supporting material.

² If the application is delivered by courier, the receipt will be handed to the courier. It will be the applicant's responsibility to retrieve the receipt, should it wish to do so, from the courier.

It is an applicant's responsibility to ensure that its application, both master copy and all other copies, are submitted by the deadline. The BCI accepts no responsibility for applications failing to be submitted by the deadline due to courier or other delivery problems.

Any request by an applicant for an extension to the time period allowed for the preparation of an application shall not be considered.

In the event that an applicant wishes to amend a typographical or other non-substantive element of their application they may seek to do so. The Commission's decision as to whether an amendment is non-substantive is final. An applicant shall not seek to enhance or change its application by submitting additional information after the deadline. Any information provided in this way will be disregarded by the Commission.

2.5.4. False or misleading information

If it emerges during the licensing process, or at any time up to the making of a multiplex contract(s), that any information supplied by an applicant(s) is false in any material particular, or that it has withheld material information, the BCI may disqualify the application.

If the BCI is satisfied at any time after making a contract that the contract holder provided information in connection with its application which was false in any material particular or s/he withheld material information with the intention of misleading the BCI, the BCI may suspend, reduce the term of, or terminate the contract in accordance with *section 10* of the 2007 Act.

2.5.5. Public Access

The BCI shall issue a press release, after the deadline for submission of applications, confirming how many, if any, applications were received and the names of the applicants.

Applications will be made available for public inspection at the BCI's offices, on its website www.bci.ie, and in the Dublin Central Library, Ilac Centre, Henry Street, Dublin 1, at the earliest possible opportunity after the closing date.

2.5.6. Submission of Confidential information

With regard to providing public access to the applications, the BCI may deny members of the public access to material forming part of an application, where it deems it appropriate that such material should be treated as confidential. Information that may be deemed to be of a confidential nature includes, *inter alia*, information that is commercially sensitive and information, the disclosure of which, would involve a breach of a confidentiality obligation which the applicant owes to a third party.

An applicant should note the following procedures regarding the submission of information which s/he considers to be confidential:

- Information submitted on a confidential basis shall be presented in an appendix to the application; the appendix shall be marked "confidential".

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- An applicant's reasons for believing that the public should not have access to the material in question shall be outlined in a separate, accompanying letter.
- The BCI shall consider the accompanying letter and the material presented in the confidential appendix.
- Where the BCI believes that material placed by an applicant in a confidential appendix should be made publicly accessible, it shall notify the applicant of its view and the reason(s) for such view.
- The applicant may make a further submission to the BCI in response to the view expressed by the BCI. Such a response must be made by the applicant within seven days of the BCI's notification.
- The BCI reserves the right to enter into discussions with an applicant concerning the confidentiality of any or all of the information submitted by that applicant before making a final determination in the matter.
- The BCI shall notify the applicant of its determination, indicating the information which it believes should be made available for public inspection.
- If, following a final determination by the BCI, an applicant is unwilling, within a period of seven days of such notification, to make any such information available for public inspection, the BCI will treat the information as having been withdrawn by the applicant. Any or all of the remaining information shall be deemed to constitute that applicant's application for a DTT multiplex contract.
- An applicant shall be responsible for providing the BCI with such authorisations, waivers and/or indemnities as it may reasonably require in connection with the disclosure to members of the public of material contained in his application.

Any agreement reached between the BCI and an applicant in respect of confidential information is without prejudice to the obligations of the BCI under law and, in this regard, the BCI cannot warrant that information claimed as confidential by an applicant might not be disclosed pursuant to law.

In particular, applicants should note that, on completion of the decision-making process, information may be made available by the BCI further to requests received pursuant to the **Freedom of Information Act, 1997**, as amended. The BCI undertakes that it will consult about the publication of any information that was claimed to be confidential in the course of the application process before making a final determination on any Freedom of Information request received.

Furthermore, applicants should also be aware of the terms of the Co-operation Agreement between the BCI and the Competition Authority, concluded further to the provisions of *section 34* of the **Competition Act 2002**. The agreement makes provision for the disclosure of information by the BCI to the Competition Authority, in certain circumstances.

2.5.7. Application Fee

Each application for a multiplex contract shall be accompanied by payment of an application fee of **€50,000**. Cheques or bank drafts, made payable to the “Broadcasting Commission of Ireland”, will be cashed upon receipt. Any application made with a payment that has not cleared within seven (7) days may be disqualified.

The BCI shall refund 80 percent (80%) of the application fee for an unsuccessful application.

2.6. Evaluation of Applications

2.6.1. Criteria for Evaluation and Weighting of Criteria

The Broadcasting (Amendment) Act 2007 provides the statutory framework for determining the award of DTT multiplex contracts. The following statutory criteria apply and will be considered by the Commission in the evaluation of applications:

9. – (2) In the consideration of applications received by it and in determining the most suitable applicant to be awarded a multiplex contract, the Commission shall have regard to –

(a) the character of the applicant or, if the applicant is a body corporate, the character of the body and its directors, manager, secretary or other similar officer and its members and the persons entitled to the beneficial ownership of its shares,

(b) the adequacy of the expertise and experience and of the financial resources that will be available to each applicant and the extent to which the application accords with good economic principles,

(c) the range and type of programme material or compilations of programme material proposed to be included in the multiplex by the applicant and how the applicant proposes to secure continued inclusion of such material,

(d) in the case of a television multiplex, the proposals by the applicant for promoting the acquisition by persons in the proposed coverage area of equipment capable of –

(i) receiving all of the television multiplexes available or expected to be available in that area, including the national multiplex referred to in *section 3(2)(a)*, and

(ii) enabling such persons to keep themselves informed of the choice of programme material included in those multiplexes,

(e) in the event that the Commission has specified a minimum coverage area pursuant to *section 8(5)*, the extent of the coverage area proposed to be achieved by the applicant,

(f) the technical proposal, including a timetable for implementation, regarding the establishment, maintenance and operation of the proposed multiplex,

(g) the duty imposed on the Commission under *section 4(5)*, and

(h) any other matter which the Commission considers to be necessary to secure the orderly establishment, maintenance and operation of multiplexes.

Please note, with reference to *section 9(2)(g)*, that no Ministerial order has been made up until the date of publication of the *Guide to Submissions*.

The BCI believes that some criteria are of greater importance to the achievement of the legislative and policy objectives than others and so some criteria will carry more weight than others in the evaluation. Thus, as can be seen from table below, a criterion with a weighting of three (3) is considered more important than one with a weighting of two (2) which, in turn is considered more important than a criterion with a weighting of one (1).

Applicants should note that if they do not achieve a minimum of fifty percent (50%) of the available score under each criterion, they will not be eligible for the award of a multiplex contract.

<i>Legislative Section</i>	<i>Guide section</i>	<i>Criterion/Ref.</i>	<i>Available Score</i>	<i>Weight</i>
9.2.a	3.3	Character of applicant etc.	10	1
9.2.b	3.4	Applicant's expertise, experience, financial resources etc.	30	3
9.2.c	3.5	Range and type of programme material etc.	30	3
9.2.d	3.6	Promotion of receivers, keeping platform users informed etc.	20	2
9.2.e	3.7	Minimum coverage area etc.	20	2
9.2.f	3.8	Technical proposal and timetable for Implementation etc.	20	2
9.2.g	3.9	Carriage of NI services, if duty imposed etc.	10	1
9.2.h	3.10	Other matters	20	2

2.6.2. Decision-making Process

The following procedure shall be followed by the BCI in deciding which applicant(s), if any, shall be awarded a DTT multiplex contract:

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- Only applications, submitted in accordance with the procedure set out at 2.5.3 (including the appropriate fee) and received by the BCI by the time and date set out for receipt of applications in the *Guide to Submissions*, shall be deemed to be qualifying applications.
- All applicants of qualifying applications shall be required to present information on their proposals at a public hearing to be hosted by the BCI. The purpose of the public hearing process is to afford an applicant the opportunity to present its application for the contract in a public forum. It is anticipated that this hearing will take place on 12th May, 2008, at a venue in Dublin. A qualifying applicant shall be notified by the BCI of procedures that will apply in respect of public hearings.
- Meetings may be requested by the BCI Executive with an applicant to raise queries or to seek clarification on any aspect(s) of an applicant's submission(s).
- The Executive shall prepare an evaluation report on each qualifying application, including commenting on where it may have failed to comply with any of the requirements of this *Guide to Submissions*. This evaluation may also include a comparative analysis of applications and comments on multiple applications and their merits in terms of achieving success for the DTT platform as a whole. The BCI reserves the right to utilise consultants in the evaluation process.
- Each qualifying application and the accompanying Executive evaluation shall be forwarded to the Members of the BCI for consideration. The Commission reserves the right to disqualify any application that does not comply with the application format set out in Part III of the *Guide*.
- At a meeting of the BCI, applications will be assessed by the Commission. Following collegiate discussion, each qualifying application shall be scored by the Commission under each statutory criterion.
- Based on the Commission's evaluation, qualifying applications will be ranked and, subject to any conditions attached by applicants being satisfied, the top three applications will be awarded the contracts. If any conditions in respect of an application are not satisfied, then that application would be disregarded and the contract awarded to the next highest ranked application.
- Alternatively, the Commission may decide not to award one or more contracts on the basis that the application(s) was/were not suitable. Any such decision will conclude the licensing process.
- It is anticipated that the Commission will decide to award the contract(s) in principle in July, 2008. All awards will be conditional on multiplex contracts between the BCI and the successful applicant(s) being finalised.

2.6.3. Contract Award

Successful applicants will be expected to enter into a contract with the Commission³. To this end, applicants are advised to have regard to the provisions of the Broadcasting (Amendment) Act 2007 and, in particular, *section 10*.

The award of a contract is subject to the detailed terms of the contract being agreed between the BCI and a successful applicant, and the applicant fulfilling any necessary conditions attached by the BCI to the award of a contract.

A successful applicant shall be required to make every effort to ensure that progress towards contract finalisation is achieved in a timely manner. The BCI reserves the right not to conclude a contract with the successful applicant(s) in the event this does not occur.

The BCI shall announce publicly the names of the successful applicant(s). Where it decides not to award a contract to an applicant, the BCI will inform the unsuccessful applicant(s) of the reasons for its decision.

2.7. Supporting Information

2.7.1. Term of Multiplex Contracts

The term of each BCI multiplex contract shall be twelve (12) years.

2.7.2. BCI Annual Fees

For the purpose of supplying information further to section 3.4, applicants should take account of annual fees, **per multiplex**, as follows:

- In each of the first three years of the contract, an amount of €25,000 per annum shall be payable;
- In each subsequent year of the contract, an amount of €50,000 per annum shall be payable.

The fee shall be payable in equal instalments, quarterly in advance, under the contract, (pursuant to *section 10(4) (b)* of the 2007 Act).

2.7.3. Transmitter Sites

Annex 1 to this *Guide* lists the technical characteristics of eleven (11) primary, fully co-ordinated, transmission sites. Annex 2 to this *Guide* contains a list of secondary transmission sites, of which nineteen (19) are, at the date of the publication of this *Guide*, fully co-ordinated.

Applicants are required to submit a detailed transmission plan which must include the 11 primary sites (listed in Annex 1), as well as a selection of sites (selected

³ DTT Multiplex Contracts shall be open to inspection by members of the public at the Offices of the BCI – *section 10(5)* of the 2007 Act.

from the list set out in Annex 2), which, in the opinion of the applicant, will provide at least the minimum coverage area at ASO.

2.7.4. Outgoing Interference

The overall outgoing interference must not exceed the equivalent level of the coordinated sites listed in Annexes 1 and 2. An applicant should note that, in some circumstances, this may require a reduction in transmission power or a more directional antenna system being deployed to prevent interference to other planned or established transmitter stations.

2.7.5. Coverage Prediction Parameters

Coverage prediction proposals from an applicant (including the coverage prediction model, clutter attenuation, resolution of the terrain database, height of the receiving antenna above ground level and the consequential minimum signal level) must be carried out within the parameters specified in Annex 3 to this *Guide*.

2.7.6. High Definition (HD) Content

The BCI shall set no particular requirement(s) in respect of the carriage of high definition (HD) content. However, it shall seek details of an applicant's intentions, in the short-, medium- and long-term, on the carriage of HD content.

2.7.7. ComReg Licence and Regulations

The attention of applicants is drawn to the following documents issued by the Commission for Communications Regulation:

- 07/90a
- 07/90b

These documents may be accessed at www.comreg.ie.

The attention of applicants is also drawn to the following documents:

- S.I. No. 796 of 2007 (also available on the ComReg website: www.comreg.ie)

Information on minimum receiver regulations for DTT in Ireland and minimum service regulations for DTT in Ireland may be available on <http://www.digitaltelevision.ie>.

2.7.8. Fair and Reasonable Access for Content Providers

Where appropriate, an applicant for a multiplex contract shall be required to provide fair, reasonable and non-discriminatory access for parties wishing to provide content to the multiplex platform.

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The BCI shall, in this regard, invite specific proposals from applicants on how they plan to achieve this objective.

3. Application Format

Applicants are required to adopt the same numbering format as used below in their applications.

3.1. Introduction to Applicant

3.1.1.a. Please provide the following details:

- (i) Applicant's name, address and contact details
- (ii) Named contact for liaison and correspondence between the BCI and the applicant, and for public purposes
- (iii) List of advisers including consultants, auditors, bankers and solicitors
- (iv) Where the application is conditional (i.e. linked to other application(s)), a numerical reference confirming that it is part of a set (e.g. if an applicant had three linked applications, they should be labelled 1 of 3, 2 of 3 and 3 of 3 respectively).

3.2. Summary of Application

Applicants are invited to submit a brief summary of their application(s) to provide members of the public with an overview of their proposals. It should be no longer than two (2) typed A4 pages.

Applicants shall also confirm the number of applications they are submitting in total, any conditions attached to their application(s) and any arrangements that must be completed before the applicant would be in a position to accept a contract, were it successful in its application.

3.3. 9(2)(a)

The character of the applicant or, if the applicant is a body corporate, the character of the body and its directors, manager, secretary or other similar officer and its members and the persons entitled to the beneficial ownership of its shares

Applicants are required to provide, with reference to the requirements set out below, full details of the identity and current status of the entity submitting the application, its managers and its owners. Further information regarding the expertise, experience and the financial resources of the applicant are addressed in 9(2)(b) below.

Applicants are also required to bring to the BCI's attention any information that may influence the Commission's opinion regarding their suitability to hold a multiplex contract.

3.3.1. Entity

3.3.1.a. What is the identity of the applicant? (Please include the names of all participants in the application, state when the applicant was formed and describe the history of the applicant to-date.)

3.3.1.b. What is your current legal status? If you are not currently a legal entity and if your application were successful, who would hold the contract?

Where the applicant is already a corporate body, please provide a copy of the certificate of incorporation, the registered address and CRO number of the applicant.

3.3.1.c. If this application is conditional, i.e. it is linked to one or more other applications, what is the relationship between the respective applicants? Please provide details of any arrangement that exists between the applicants.

3.3.2. Management

3.3.2.a. Who are the members of the board of directors (or equivalent) of the applicant? (For each person please provide their name, address, age, nationality and current occupation)

3.3.2.b. Which of the directors is the chairperson (or its equivalent)?

3.3.2.c. Who is the managing director or senior executive officer of the applicant (please provide name, address, age, nationality and current occupation of this person)?

3.3.2.d. Who is the secretary or similar officer of the applicant (please provide name, address, age, nationality and current occupation of this person)?

Details of the experience and expertise of the managers should be provided in section 3.4.1.

3.3.3. Shareholding/Beneficial Ownership of Shares

3.3.3.a. What is the existing or proposed shareholding structure of the applicant? (Please specify the total number of authorised shares, the total issued share capital, and the class/classes of shares.)

3.3.3.b. Who are the owners or proposed owners of all of the shares in the applicant and/or the persons entitled to the beneficial ownership of the shares where a shareholding is in the name of a trustee or nominee? (Please provide, in respect of each such person, his/her name and home

address. Where a shareholder of the applicant is a body corporate, please provide the names and addresses of the shareholders and/or person(s) entitled to the beneficial ownership of the shares, and specify the percentage that each shareholding represents of the total issued share capital of the body corporate.

3.3.3.c. What is the existing or proposed shareholding (per class where relevant) and the issue price subscribed by each shareholder (including details of any premium paid), and the percentage that each shareholding represents of the total issued share capital of the applicant?

3.3.3.d. What percentage of all the votes that may be cast by the shareholders of the applicant at general meetings is attached to each shareholding?

3.3.3.e. What is the total value of loan stock and the existing or proposed amount of loan stock subscribed by each shareholder?

3.3.3.f. Where there is a shareholders', or other, agreement/s in existence or proposed in respect of the applicant, please provide details of the provisions of such agreement/s relating to the ownership and/or control of the applicant i.e. board of directors, transfer of shares, pre-emption rights, additional rights conferred by share class, exit mechanisms and conditions envisaged etc.

Full details of an applicant's financial resources should be provided in section 3.4.2.

3.3.4. Additional Information

Please answer the following questions “yes” or “no”, on behalf of the applicant, to include, if the applicant is a body corporate, its directors, manager, secretary or other similar officer and “significant” shareholders. A person will be deemed to be a “significant” shareholder if s/he is the legal or beneficial owner of shares in the applicant to which are attached ten percent (10%) or more of the voting rights exercisable at a general meeting of the applicant. If the answer is “yes” to any of the following questions, please provide full details.

3.3.4.a. Has the applicant ever been convicted of an offence involving fraud or dishonesty?

3.3.4.b. Has the applicant ever been restricted or disqualified as a Company Director, or convicted of any offence under the Companies Acts 1963-2006 (as amended) in this jurisdiction or under equivalent legislation in any other jurisdiction?

3.3.4.c. Has the applicant ever been adjudicated a bankrupt, become insolvent or entered into a voluntary arrangement with creditors, or had a receiver appointed to any of his assets, in this or any other jurisdiction?

3.3.4.d. Has the applicant ever been a director of a company to which a receiver was appointed, which went into compulsory liquidation, creditors' voluntary liquidation, examinership or which made any

arrangement with its creditors or class of creditors?

3.3.4.e. Has the applicant ever been convicted of an offence under any legislation by which Broadcasting and/or Wireless Telegraphy is regulated in this or any other jurisdiction?

3.3.4.f. Has the applicant ever had a licence or contract issued by a broadcasting licensing body or any other statutory body suspended or revoked in this or any other jurisdiction?

3.3.4.g. Is the applicant aware of any reason why it may not be a fit and proper person to be awarded a contract?

3.4. 9(2)(b)

The adequacy of the expertise and experience and of the financial resources that will be available to each applicant and the extent to which the application accords with good economic principles

For ease of reference, this criterion will be assessed in two parts:

- Expertise and experience available; and
- Adequacy of the available financial resources and accordance with good economic principles.

3.4.1. Part 1 – Expertise and Experience Available

Applicants are required to demonstrate the level of expertise and experience that will be available during the establishment and operation of the business by addressing the following questions:

3.4.1.a. Please provide in diagrammatic form the organisational structure (including the management structure) for delivering the proposed service. Please include estimated staff numbers, categories and location of staff and indicate whether these staff will be employed by the multiplex contractor or by sub-contractors?

3.4.1.b. To what extent have individuals been identified for key posts? Where relevant, please provide details of such individuals as follows: name, home address, age, qualifications.

3.4.1.c. What are the background, expertise, experience and track record of the following, highlighting the relevance to the proposed operation:

- (i) Each member of the board of directors, or equivalent, of the applicant
- (ii) Key members of the management team

3.4.1.d. Comment on the adequacy of the combined expertise and experience of participants, of the above persons in the context of the award of a DTT multiplex contract.

3.4.1.e. In the event of out-sourcing/sub-contracting of any key aspect of the proposed service, where appropriate please indicate the proposed provider of the service, together with details of key personnel identified to support the multiplex contractor and information on their qualifications, expertise and experience.

3.4.1.f. What is the relevant experience of existing organisations that are participants in, or closely involved with, the application? (Please include references to any existing operation, preferably in which the applicant has a direct involvement that is comparable to the proposed service in Ireland including brief details of the duration and size of the business.)

3.4.2. Part 2 – Financial Resources and Accordance with Good Economic Principles

This part of the application is divided into three sections:

- analysis of the marketplace;
- business plan; and
- funding arrangements.

Applicants should bear in mind when providing information that the BCI will wish to consider the extent to which each application is in accordance with good economic principles.

Analysis of the Marketplace

Applicants are required to set out their analysis of the marketplace, in a concise and focussed manner, including responses to the following:

3.4.2.a. What assessment have you made of Ireland's economic prospects in the medium to long term? How has this influenced your proposals for the business plan? What assumptions have you made, implicitly or explicitly, regarding future trends in the population, number of households and socio-demographic mix?

3.4.2.b. How would you assess the existing market in Ireland for television services from a supply perspective (e.g. services available, pricing, service providers etc)? (This should cover all delivery platforms, including terrestrial, satellite, cable, MMDS and IPTV).

3.4.2.c. How would you assess the same market from a demand perspective (e.g. consumers' preferences and satisfaction levels, latent demand, attitudes to new technology and new services, willingness to spend)?

3.4.2.d. What opportunities do you believe exist at (i) the retail level and (ii) the wholesale level for DTT-delivered services, and why?

3.4.2.e. How would you describe the competitive situation in the television services market in Ireland and, in particular, the issues facing new entrants?

3.4.2.f. Why do you believe there is a demand for the service(s) you propose, be it at the retail or wholesale level, and what evidence can you provide to demonstrate this demand?

3.4.2.g. How would you segment the customer-base for the proposed service(s) on a meaningful basis? What is the typical profile and size of each segment?

Applicants are encouraged to support their responses to the above with data and, where appropriate, market research findings, including details of the research methodology and timeframe.

Business Plan

This section consists of three components:

- a comprehensive overview of the applicant's proposed business plan;
- a detailed set of financial projections; and
- accompanying notes to the projections.

1. Overview

The overview must set out the key strategic, commercial and operational elements of the proposed business. It should include answers to, but not be limited by, the following questions:

3.4.2.h. What is the precise nature of the service or services proposed?

3.4.2.i. What are the commercial terms on which the service(s) will be offered (including pricing proposals and longer-term pricing strategy)?

3.4.2.j. What are the features that will make this a compelling proposition to each of the customer segments?

3.4.2.k. In terms of sales, what distribution channels will be deployed for both DTT receivers and any subscription or other pay service, and how will these products and/or service(s) be marketed?

3.4.2.l. How will the proposed service(s) impact on, and be affected by, competing services and/or products, both in the short and medium term, with regard to viewing behaviour and revenue?

3.4.2.m. What is the projected demand (in terms of acquisition of DTT receivers, take-up of subscription services and viewing levels) for this service(s) for each year of the licence and how have these projections been derived?

3.4.2.n. How have the cost projections for the various programme sources identified by the applicant with reference to section 3.5 been determined? What commercial issues, if any, have still to be resolved before the supply of the proposed programming is secured?

3.4.2.o. What allowance, if any, has been made in the business plan to ensure that suitable DTT receivers will be available and what costs have been included to support the acquisition of the receivers (through subsidy or other means), as set out by the applicant with reference to section 3.6.

3.4.2.p. How have the cost projections for (i) coding & multiplexing, (ii) feed distribution to transmitter sites and (iii) RF transmission been determined in support of the coverage and technical proposals set out by the applicant in response to sections 3.7 and 3.8 respectively? Please describe what risk assessment has been made of cost accuracy and stability over the licence period, the nature and scale of the risks identified and the provisions that have been made in the business plan for managing these risks.

3.4.2.q. What are the start-up costs and what capital expenditure will be required over the duration of the licence?

3.4.2.r. How does the proposed business plan fit strategically with the existing business activities of the participants of the applicant?

3.4.2.s. What is the minimum acceptable pre-tax Internal Rate of Return for the business plan and how has this figure been arrived at?

3.4.2.t. What provisions have been made for platform-wide initiatives to develop and/or promote DTT and the facilitation of digital switch-over (for example, a common approach to information dissemination on coverage and receiver acquisition or a common EPG solution)? Please include details of costs.

3.4.2.u. What risk assessment has been made of the business plan? What are the proposals for dealing with the identified risks? What contingency plans does the applicant propose to put in place?

Applicants should include quantitative data wherever relevant including, as a minimum, the data requested in the market data template contained within the Excel workbook (reproduced in Annex 5 of this document).

2. Financial Projections

The financial projections should consist of an internally-consistent set of annual profit & loss, cash-flow and balance sheet statements using the Excel templates provided (and reproduced in Annex 4 of this document) to reflect the business plan described above.

In addition, a set of financial projections, using the same templates as before, should be provided to illustrate the following hypothetical situation:

- all revenue is ten percent (10%) lower than in the base-case projections for each and every year of the licence period.

All projections must be drawn up on a calendar year basis (i.e. ending 31st December) and presented in the format specified in the templates. Starting 1 January 2008, they must extend forwards to cover the full 12 years of the DTT multiplex licence period. Details of any partial year figures should be given in the accompanying notes.

All monetary values must be expressed in constant 2008 Euros (i.e. real not nominal prices) and exclude VAT.

3. Accompanying Notes

3.4.2.v. Please provide a comprehensive set of notes to accompany the financial projections including:

- (i) A projected breakdown of households receiving DTT in terms of basic and premium subscriptions and free-to-air only at the mid-point of each year of the licence period.
- (ii) Projections for the number of TV households, by platform, that use DTT for secondary viewing (e.g. televisions in kitchens, bedrooms etc).
- (iii) The composition of DTT secondary televisions in terms of free-to-air only and subscription (basic and premium) and their projected share of the pay-TV market.
- (iv) Explanation of how each line in the Profit & Loss projections has been arrived at, including details of all underlying assumptions.
- (v) Details of the timing and size of the funding requirement with reference to the cash-flow projections and, for each year of the projections, the maximum level of borrowings drawn under all facilities.
- (vi) A comprehensive breakdown of all capital expenditure projections (consistent with the overview and cash-flow projections) by category and calendar year.
- (vii) An explanation of the accounting principles on which the financial projections have been prepared, and confirmation that they are in accordance with accepted accounting standards in Ireland.

Separate notes must be provided for the projections dealing with the sensitivity test. They must include details of any deviation from the situations described in the accompanying notes described above.

Funding Arrangements

This section consists of three components:

- An account of the applicant’s funding strategy;
- The financial standing of the applicant; and
- Evidence of the available financial resources.

1. Funding Strategy

The funding strategy must detail how the applicant proposes to meet all pre-operational and subsequent funding requirements by addressing the following questions:

3.4.2.w. What are the funding requirements of the business plan prior to contract, prior to launch and after the launch of the service through to the end of the licence period?

3.4.2.x. How do you propose to meet these requirements? Please provide full details of all proposed funding including timing, amount, source and nature of the funding. This must include a clear distinction between drawing upon existing resources and putting new facilities in place.

3.4.2.y. What flexibility is there in the proposed funding arrangements to deal with significant deviations from the business plan?

3.4.2.z. What alternative financial resources does the applicant have access to if the proposed funding is not forthcoming or sufficient?

2. Financial Standing

Where the applicant is already a corporate body, the following must be provided (the following should be read in conjunction with the information requirements set out in section 3.3 above):

3.4.2.aa. Full details of the equity share capital of the company.

3.4.2.bb. Full details of all other share capital already in issue, including all forms of preference shares, convertible loan stock, options, and warrants.

3.4.2.cc. Full details of the borrowing facilities currently available to the company, or to the parent company in the case of inter-group funding, and the extent to which they are currently drawn down. This must include the amount and terms of all borrowings (repayment details, covenants, etc.), any security provided and charges against company (or other group company) assets, and the names and addresses of lenders of and guarantors to any of the facilities.

3.4.2.dd. Full details of any contingent liabilities and off-balance sheet

financing arrangements.

3.4.2.ee. The applicant must also provide audited accounts of the applicant company for the most recently completed financial year. If these are not yet available, audited accounts for the previous financial year, together with any interim financial statement, and draft accounts or management accounts for the most recent financial year should be provided.

If the applicant's financial position is supported by a guarantee, the latest available audited accounts of the guarantor should also be provided.

Where the applicant is not yet incorporated, the following must be provided:

3.4.2.ff. Full details of the proposed capitalisation plan including the proposed timing and current status of the proposals.

3.4.2.gg. Full details of the financial interest of each proposed investor in the applicant company.

3. Evidence

In providing supporting evidence, the applicant must demonstrate so far as possible that sufficient resources are available or will be forthcoming.

Where new share capital is to be raised, the following should be provided:

3.4.2.hh. A clear statement of commitment from investors including details of the timing and amount(s) to be made available.

3.4.2.ii. Written evidence that arrangements for the provision of new equity are achievable including details of any pre-conditions or other obligations that must be met. For example:

- (i) Where existing corporate shareholders are to subscribe for further equity, a Board minute approving their investment should be provided.
- (ii) Where new capital is to be raised in the market, a comfort letter from financial advisers or stockbrokers confirming that such a capital-raising exercise would be possible assuming no material change in current market conditions.

3.4.2.jj. Where specified investors have committed to subscribe for more than 5 per cent of the applicant's total financing, copies of the most recently available audited accounts together with written confirmation of agreement in principle to making the investment covering:

- (i) the amount to be invested;
- (ii) the percentage shareholding; and
- (iii) any pre-conditions to making the investment.

In the case of private shareholders or where the above is not feasible, investors should provide an independently-verified statement regarding their capacity to invest the required funds.

Where new borrowings are proposed in whatever form, the following should be provided:

3.4.2.kk. Written evidence that in principle such arrangements are available. This should be **in the form of a letter of intent** from the principal lenders, covering the following points:

- (i) the amount, type and duration of the facility;
- (ii) the drawdown schedule;
- (iii) the approximate costs of the facility, within an indicative range;
- (iv) any security or guarantee required in support of the facility;
- (v) full details of any conditions precedent;
- (vi) the principal covenants (including specific details of cover ratios);
- (vii) details of warranties and undertakings given under the financing agreements and details of events of default; and
- (viii) the length of time required to put the facility in place, including details of any due diligence or prior obligations which would need to be met for the financing to be available.

In the event that some security or guarantee is required, evidence that this will be available.

In support of their funding proposals, applicants are invited to:

3.4.2.ll. Give a clear commitment regarding the amount of funding (both in absolute terms and as a percentage of the total funding requirement) that would be put in place prior to, or at the time of, the finalisation of the contract;

3.4.2.mm. Provide a detailed timetable of the steps that need to be taken before the finance is available; and

3.4.2.nn. Express their longer term commitment to the development and continuation of DTT in Ireland, especially under adverse conditions.

3.5. 9(2)(c)

Range and type of programme material or compilations of programme material proposed to be included in the multiplex by the applicant and how the applicant proposes to secure the continued inclusion of such material

For this criterion, applicants are required to provide details on their programming strategy, including their provisions for allowing access to channel capacity and accommodating high definition television, and the range and type of programme material being proposed.

Programming Strategy

3.5.1.a. What is the applicant's vision for programme content delivered on the DTT platform?

3.5.1.b. What is the strategy for creating and sustaining the mix of content proposed on the multiplex, both at the commencement of transmission and over the duration of the multiplex contract?

3.5.1.c. What specific proposals, if any, are there for providing content providers with access to the multiplex in a manner that is fair, reasonable and non-discriminatory?

3.5.1.d. Please detail the policy, strategy and specific proposals, if any, for the carriage of content in high definition (HD) format over the short (1-3 years), medium (3-5 years) and long term (5-10 years).

Range and Type of Programme Material or Compilations of Programme Material

Applicants are required to set out in detail the programme content to be carried on the multiplex and the rationale for the mix proposed⁴. Issues that must be addressed include, but should not be limited by, the following:

3.5.1.e. What is your assessment of viewing patterns of audiences in Ireland, both current and historic, and how has this informed your programming proposals?

3.5.1.f. In the case of television content, how many and what type of channels are proposed?

3.5.1.g. What is the ratio of indigenous to non-indigenous services and content proposed?

⁴ This includes, but is not limited to, television content, radio content, EPGs, digital teletext services, other interactive services.

- 3.5.1.h. What is the ratio of free-to-air to subscription and/or other pay-TV content?
- 3.5.1.i. Please describe the diversity of sources of news, information and current affairs contained within the range and type of content proposed.
- 3.5.1.j. What level of assistive services is proposed? (Please include a description of the services proposed and comment on the quality of services that might be expected)
- 3.5.1.k. How will the range and type of content proposed extend choice to viewers? To what extent will it appeal to a variety of tastes and interests?
- 3.5.1.l. To what extent are the range and type of programming proposed innovative and/or not already available to audiences in the State?
- 3.5.1.m. Please provide details of the proposed broadcast schedule illustrating how content would be fitted into an overall schedule of broadcasting across the multiplex and indicate the time/s of the day and the day/s of the week on which each service will be broadcast and the target audience(s).
- 3.5.1.n. For each television channel/compilation of programme material, please detail the period for which it is proposed such material will be carried. Please indicate whether the proposed material has already been secured by way of formal agreement between the applicant and the source of the content.
- 3.5.1.o. Where the continued inclusion of a channel/compilation of programme material has not been secured, what are the applicant's proposals for either (i) securing the material's continued inclusion and the period of time for which such continued inclusion will be sought or (ii) obtaining alternative content?
- 3.5.1.p. Multiplex operators are responsible for ensuring that all content carried on their multiplexes are licensed. Please confirm that all content is appropriately licensed or, if appropriate, describe what plans you have to address this requirement.
- 3.5.1.q. Where relevant, applicants must explain the type of content proposed in HD format and comment on the steps it proposes to take to source and fund the content. The applicant should explain how it proposes to accommodate such content on the multiplex and describe the impact that carriage of HD content may have on the range and type of programming going forward.
- 3.5.1.r. Please describe the extent to which the programme proposals utilise spectrum efficiently and comment on the expected levels of audio and visual quality and explain how this has influenced the rationale behind your programming strategy.
- 3.5.1.s. Please describe what non-programme data would be included

in the proposed service(s) and the amount of capacity allocated to it.

Please demonstrate how your proposals for programming are supported by relevant and appropriate market research, cross-referring where appropriate to your responses to section 3.4.2, the analysis of the marketplace.

3.6. 9(2)(d)

In the case of a television multiplex, the proposals by the applicant for promoting the acquisition by persons in the proposed coverage area of equipment capable of –

(i) receiving all of the television multiplexes available or expected to be available in that area, including the national multiplex referred to in section 3(2)(a), and

(ii) enabling such persons to keep themselves informed of the choice of programme material included in those multiplexes

To demonstrate their proposals in relation to this criterion, applicants are requested to provide information in two parts dealing respectively with:

- reception of all television multiplexes; and
- keeping informed of choices.

3.6.1. Reception of all television multiplexes

3.6.1.a. Describe generally your strategy for promoting the acquisition of equipment capable of receiving all multiplexes available or expected to be available in the coverage area proposed.

3.6.1.b. How will you ensure that consumers can obtain equipment that meets or exceeds the functionality requirements set out in section 2.2.2?

3.6.1.c. If you propose to employ Conditional Access (CA), please describe your approach to supplying the means of reception to authorised viewers (e.g. the supply of a proprietary set-top box, a CA Module, a decoder card etc.) and please provide the following information:-

- (i) How will your proposed implementation facilitate interoperability between multiplexes, such that viewers may receive all available DTT programme services on a single receiving device (subject to obtaining the necessary authorisations)?

- (ii) Outline how inconvenience to consumers can be minimised in cases where more than one type of CA system may be deployed?
- (iii) Confirm that any equipment proposed will meet the functionality requirements set out in section 2.2.2 and describe any additional features that exceed the core requirements for DTT receivers.
- (iv) Confirm if the receiving equipment will be rented, sold, provided free-of-charge or subsidized.
- (v) Provide details of any proposals you may have in respect of associated customer support services (e.g. hotlines, repairs) and billing- and conditional access-related services to the consumer.
- (vi) Confirm the status of ownership and operability of any receiving equipment upon termination/ suspension of a subscription contract. (Please confirm whether or not the equipment will continue to receive FTA services in such an event.)

3.6.1.d. How do you propose to disseminate information to members of the consumer electronics retail and installation trades and to the public regarding the rollout and extent of coverage from the proposed network and any other information needed to obtain your service? Please include details such as proposals relating to interference-limited coverage maps, help desks, sales centres, information publication and online services including internet website publications.

3.6.1.e. Are you prepared to support a common information dissemination strategy, involving all multiplex contractors, to provide such information through a single source? What commitment would you be willing to make in supporting any such entity? Please include details of any associated financial implications in section 3.4.

3.6.2. Keeping Informed of Choices

3.6.2.a. What are your proposals for keeping consumers up-to-date with programme service offerings, including any proposals relating to the development and operation of an EPG?

3.6.2.b. If you propose to develop and operate an EPG, what is your policy towards providing such a service on a common basis with other multiplex contractors and how this would be implemented in practice? What commitment would you be willing to make to the support of any such joint arrangement? (Please include details of any associated financial implications in section 3.4.)

3.7. 9(2)(e)

In the event that the Commission has specified a minimum coverage area pursuant to section 8(5), the extent of the coverage area proposed to be achieved by the applicant

The Commission requires multiplex contractors to provide its minimum predicted coverage of ninety percent (90%) of the population in the State, for each multiplex, at, or immediately following, ASO (see section 2.2). Applicants are required to submit a detailed transmission plan which must include the 11 primary sites (listed in Annex 1) as well as a selection of sites (from the list set out in Annex 2), which, in the opinion of the applicant, will provide at least the minimum 90% predicted coverage, at ASO.

Applicants may choose to transmit from a different location at one or more of the transmission sites.

3.7.1.a. In relation to this criterion, applicants are required to set out their proposals for achieving, and, if appropriate, exceeding, this coverage requirement, by providing maps showing computer-predicted coverage plots, together with any supporting information necessary for the correct interpretation of the maps.

These maps should indicate predicted transmission coverage at:

- (i) the launch of the service
- (ii) annually thereafter or at other major rollout-phase milestones and
- (iii) analogue switch off.

3.7.1.b. A table should be provided that sets out the predicted population coverage (as a percentage of the total population in the State) at:

- (i) the launch of the service
- (ii) annually thereafter or at other major rollout-phase milestones and
- (iii) analogue switch off.

The computer-predicted coverage plots, superimposed on a suitable map, must be provided in the application in an A4 or A3 format and as a high resolution image file on an accompanying CD. These plots should be for noise-limited coverage. The relevant parameters that must be applied when predicting coverage are specified in Annex 3.

3.7.1.c. Please **confirm** that the predicted coverage will meet the 90% minimum predicted population coverage requirement at completion of ASO. (Indicate the data and method used to predict population coverage and provide details of any additional transmitter stations, frequency

changes or ERP increases that will be required at ASO to achieve the 90% threshold.)

3.8. 9(2)(f)

The technical proposal, including a timetable for implementation, regarding the establishment, maintenance and operation of the multiplex

Applicants are required to set out their technical proposals in three sections dealing with transmission, distribution and multiplexing respectively.

Transmission proposals

In this section, applicants should elaborate on the transmission plans provided in response to the previous section, with reference to the following questions.

3.8.1.a. What is your proposed strategy in relation to transmission coverage? How will coverage be rolled out over the duration of the contract? (Please include details of the proposed timing, set out the critical assumptions underpinning the proposals and identify sites where commissioning of the site is envisaged after ASO.)

3.8.1.b. Provide details of the transmission sites proposed by the applicant and the associated technical characteristics. These must be provided in the format set out in the following table:-

On-air Date	Site Name	Site co-ords	Site/Mast Owner/ Operator	Site Height ASL	Antenna Height AGL	ERP	Polarisation
	Sliabh Mor	123456E 123456N	RTÉ NL	450m	60m	37dBW 27dBW	hor pol/ vert pol
	Cnoc Beag	456789E 456789N	Sureview Comms	80m	24m	24dBw	vert only

3.8.1.c. The antenna radiation pattern proposed in respect of each multiplex transmitted at a site should be provided. In cases where both HP and VP are used at the site, a pattern for each polarisation should also be provided. Confirmation is required from the site/mast owner/operator that this radiation pattern can be accommodated in the manner proposed.

3.8.1.d. What are the details of the modulation scheme, FEC code rate

and guard interval proposed for each multiplex (see ComReg 07/90b, section 2.3.4 and table 19)? (Please indicate any variations envisaged in modulation scheme/s at various phases, both before and after analogue switch off.)

3.8.1.e. The required transmission coverage must be achieved with a satisfactory level of technical quality and reliability. Please confirm your commitment to achieve a 99.8% service operational availability⁵ at the main transmission sites (analogous to those listed in Annex 1) and demonstrate how this will be achieved, including details of the proposed equipment and redundancy provisions. If such a level of availability cannot be guaranteed, please explain what level can be achieved and how, in your view, this is sufficient to ensure the technical quality and reliability of the multiplex service.

3.8.1.f. How do you propose to ensure that timing and synchronisation are maintained in Single Frequency Networks (SFN)? What is the proposed approach, and rationale for any such approach, for dealing with a situation in which synchronisation of one or more transmitters in an SFN is lost?

Distribution Proposals

3.8.1.g. What is your proposed strategy for distributing the combined content from the multiplex facility to the proposed transmission sites?

3.8.1.h. Please describe the specific means (e.g. terrestrial radio link, fibre/copper wire, or satellite/dual feed satellite) which you propose to use for carriage of multiplexes from the head end to the transmission sites.

3.8.1.i. The information should be provided in a table, on a site-by-site basis, in the format below or in an equivalent graphical representation.

Transmission site	Primary distribution mechanism	Secondary distribution mechanism	Other back-up means

3.8.1.j. Please confirm that antenna and equipment locations are available at the sites proposed to support your proposal.

3.8.1.k. Please confirm your commitment to achieve 99.99% service

⁵ This excludes planned outages/power reductions associated with installation and maintenance, and is equivalent to a total outage of 17.5 hours per year at each main site.

operational availability (equivalent to a total outage of 52 minutes per year per path) for the distribution system, and demonstrate how this will be achieved, including details of proposed equipment and system redundancy. If such a level of availability cannot be guaranteed, please explain what level of availability the system is designed to achieve and how, in your view, this will ensure a sufficiently high level of technical quality and reliability for the multiplex service.

Multiplexing Proposals

3.8.1.l. What is your proposed strategy in relation to the multiplexing of content? (Please indicate whether the facility will be provided on a stand-alone basis or at a shared multiplex centre and provide details of the proposed location of the multiplexing facility and rationale for same.)

3.8.1.m. What, in percentage terms, do you expect the use of capacity on the multiplex to be for (i) programme and programme-related content and (ii) non-programme related data? How do you intend to ensure that the programme and programme-related data will always exceed the eighty percent (80%) minimum requirement (see section 2.2.3)?

3.8.1.n. What, in percentage terms, do you expect the use of capacity on the multiplex to be for the following purposes?

- (i) television content (SD and HD content);
- (ii) digital teletext;
- (iii) other interactive services; EPG;
- (iv) SI;
- (v) radio content;
- (vi) assistive services and other services that will require more than 0.5% of the available multiplex capacity.

3.8.1.o. Please indicate your proposed approach to ensuring a sufficiently high level of technical quality for the multiplex service, including necessary video and audio bit-rates for programme content. Supporting information should be provided where possible using the format below:

Prog. Service name or genre	Typical audio bit rate / parameters	Coding algorithm Audio / Video	SD or HD	Subject to statistical multiplex-ing?	Average /typical video bit rate	Minimum/ maximum video bit rate	Total average bit rate

3.8.1.p. How will the Service Information (SI) be compiled and what is the mechanism proposed for SI cross-carriage?

3.8.1.q. Please provide details of the middleware proposed to support the proposed EPG service, if any, and confirm whether, and if so how, over-the-air software updates will be provided.

3.8.1.r. Do you propose to carry access services (audio description (AD), subtitling, signing)? If so, please indicate how these services will be originated and sourced and detail the mechanism for provision including (i) whether the AD service will be provided by a separate audio stream for user mixing with programme sound, or whether a composite audio stream containing both audio description and programme sound will be premixed and provided as an additional audio service and (ii) the typical bit rate proposed for such services. Supporting information should be provided using the format below:

Prog. Service name	Audio Description (pre-mixed or user mixable)	Subtitling /signing (sub only, sign only, Sub + sign)	Rebroadcast link/Direct/Satellite	Reason Why

3.8.1.s. How will the programme services, to be carried on the multiplex, be sourced, e.g. terrestrial rebroadcast link, satellite, direct input (including fibre or terrestrial radio link from studio)? Please provide the rationale.

3.8.1.t. Please indicate your commitment to achieve a 99.99% service operational availability of the multiplex facility (equivalent to a total outage of 52 minutes per year) and demonstrate how this will be achieved with reference to location, equipment, and equipment redundancy. If such a level of availability cannot be guaranteed, please provide the level of availability proposed and how, in your view, this will provide a sufficiently high level of technical quality and reliability for the multiplex service.

3.9. 9(2)(g)

The duty imposed on the Commission under section 4(5)

Section 4(5) states:

It shall be the duty of the Commission to endeavour to arrange for the broadcasting of any television broadcasting service in Northern Ireland that is notified to the Commission by the Minister, being a service that is receivable throughout the whole of Northern Ireland and is provided by terrestrial means, by digital means under a multiplex contract.

The purpose of the following questions is to ascertain how, and to what extent, an applicant might accommodate the inclusion on the multiplex of television service(s) (receivable throughout the whole of Northern Ireland and provided by terrestrial means), in the event that a notification is made by the Minister to the Commission, further to the provisions of section 4(5) of the 2007 Act.

3.9.1.a. How might one or more such services be accommodated on the multiplex? Your response should set out the capacity, if such is available, to accommodate any such service, the means proposed for channel sourcing and any issues you anticipate might arise in respect of SI, EPG or other signalling.

3.9.1.b. How would such a notification impact on the television programme content already carried on the multiplex and agreements entered into by you in respect of the carriage of content?

3.9.1.c. What impact do you anticipate such a notification may have on your business plans and financial projections?

3.9.1.d. How is your ability to accommodate such a notification affected by the attachment, or not as the case may be, of any conditionality to this application?

3.10. 9(2)(h)

Any other matters which the Commission considers to be necessary to secure the orderly establishment, maintenance and operation of multiplexes

In addition to the specific requirements covered under previous criteria, the BCI will assess the overall realism shown in each application, as suggested by the level of coherence between the proposals and any supporting research or other data; the degree of optimism exhibited in the financial projections and underlying assumptions; and the application of good risk management principles. The BCI will also take account of the following:

- Timeframe for commencement of transmission;
- Media concentration considerations; and
- Achievement of statutory and BCI Policy objectives.

Timeframe for Commencement of Transmission

Section 4(4) of the Act requires the Commission to endeavour to arrange, *as a matter of priority*, for the establishment, maintenance and operation of three national television multiplexes (emphasis added). The Commission considers it desirable that BCI-licensed DTT multiplex contractors commence transmission at the earliest possible date. For this reason, the BCI shall have regard to the overall timeframe proposed by applicants for implementation of their proposals, including the date proposed for commencement of transmission should the multiplex contract be awarded.

3.10.1.a. Are any consents, clearances, permissions or approvals (including EC Merger approval) necessary or appropriate, or other conditions needing to be met either before or after the contract is awarded?

Where appropriate, please provide details, including a timetable, for satisfying the requirement(s).

3.10.1.b. Please submit a critical path analysis identifying all key actions and decisions required on the applicant's part and their timescale from the time of the award of the contract to the on-air date.

3.10.1.c. How is your ability to progress to commencing transmissions affected, if at all, by the attachment, or not as the case may be, of any conditionality to this application?

Media Concentration Considerations

The BCI's DTT Multiplex Licensing Policy (2008) states that the Commission shall have regard to "the desirability of allowing any person, or group of persons, to have control of, or substantial interests in, an undue amount of the communications media in the area covered by the multiplex contract (i.e. the State)."⁶

3.10.1.d. With reference to the information provided in section 3.3, please identify and provide details of the following:

- (i) All substantial interests held (either directly or indirectly) by the applicant or by any member of the applicant or by any director of the applicant in the communications media in the State;
- (ii) Control - exercised directly or indirectly, by the applicant or by any member of the applicant or by any director of the applicant - of any communications media in the State.

3.10.1.e. The applicant should state why, in its view, the award of one (or more) DTT multiplex contract(s) to the applicant would not result in the applicant having control of, or substantial interests in, an undue amount of the communications media in the State.

Applicants should discuss the context in which their statement is made, with reference to the following:

- (i) The totality of the communications media in the State
- (ii) The share of the total audience of the various communications media in the State

The BCI shall apply two tests in order to determine if an individual or entity has more than a reasonable share of the communications media in the State:

- A test of substitutability i.e. in assessing the extent to which one communications media may be deemed to be a substitute for another;
- Regarding an applicant's ability to influence opinion-forming power, a test of dominance, applying the applicant's audience share of the communications media (in which it holds a substantial or controlling interest), in the State.

3.10.1.f. Applicants are invited to comment on their proposals in the context of the above tests.

Achievement of Statutory and BCI Policy Objectives

3.10.1.g. Please provide a general statement on the nature and duration of your commitment to the orderly establishment, maintenance and

⁶ The terms 'control', 'substantial interests', 'undue amount' and 'communications media' are defined in *BCI Ownership and Control Policy (2008)*.

operation of DTT in Ireland.

It is the Commission's policy that a driver or champion for DTT is highly desirable for the promotion and success of the platform.

3.10.1.h. What proposals, if any, do you have for co-operating with other multiplex operators in the promotion of the platform, both at the launch of DTT and over the period of the multiplex contract? Please comment on your willingness to collaborate with other DTT multiplex operators and to participate in the promotion of the platform.

3.10.1.i. What are your proposals for the establishment, operation and funding of a platform driver?

The BCI wishes to accommodate and recognise any innovative proposals that would have a beneficial influence on the development of the DTT platform and are not adequately addressed under the earlier criteria (a) to (g).

3.10.1.j. What aspects, if any, of your application do you believe are innovative and will contribute to the success of DTT? How would you describe the benefits and costs of the proposal(s) and confirm the extent to which they are reflected in the business plan and financial projections.

The BCI will have regard to whether the success of the DTT platform is likely to be better served by awarding the three multiplex contracts to a single applicant (or two or more applicants acting in a coordinated manner) through a series of conditional applications or to three applicants acting independently.

3.10.1.k. What are the specific merits, if any, of your application viz a viz the inclusion or exclusion of any related conditionality with regard to the success of the DTT platform as a whole?

3.10.1.l. Are there any other aspects of your proposal not described in any of the above responses that you believe are relevant to realising the broad DTT objectives of the Broadcasting (Amendment) Act 2007 as well as the objectives of the BCI's DTT Multiplex Licensing Policy (2008)?

General Disclaimer

Information is supplied on a wide range of matters in this *Guide to Submissions*, many of which depend on interpretation of the law. The information given is not an exhaustive account of the statutory and licensing requirements and should not be regarded as a complete and authoritative statement of the law. Nor does any information issued by the BCI, whether in the *Guide to Submissions* or elsewhere, imply any judgement by the BCI as to commercial prospects for the contracts, or that licensed services will be profitable.

Anyone seeking to apply for a DTT multiplex contract must make their own independent assessment of multiplex services, after taking their own professional advice and making such further investigations as they deem necessary on all relevant matters. The BCI makes no representation or warranty, express or implied, with respect to information contained in this *Guide to Submissions* or with respect to any written or oral information made or to be made available to any potential applicant or its professional advisers. Any liability, therefore, is expressly disclaimed.

The BCI shall accept no liability for any expenditure incurred by an applicant in preparing an application, whether or not submitted, and whether or not successful.

Glossary

“2007 Act” means the Broadcasting (Amendment) Act 2007

“Applicant” means a body corporate or individual, or collection thereof, who has submitted an application for one or more multiplexes to be awarded by the BCI.

“Analogue Switch-Off” refers, in this *Guide*, to the date on which the final transmitter broadcasting analogue terrestrial television signals to the State is switched off.

“Commencement of transmission” is the date on which the first commercial DTT service goes live.

“Compilation of programme material” is defined as per the 2007 Act.

“Contractor” means a holder of a BCI multiplex contract.

“DTT” or Digital Terrestrial Television: a means of digitally broadcasting signals over the air to television sets equipped with a DTT receiver (either integrated into the TV or in a separate set-top box).

“Participants” any person or organisation with an ownership or controlling interest in the Applicant.

“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.

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

“Retail” refers to the provision of programme material and/or data services to end-customers, for payment or otherwise.

“Specified area” means the State.

“Wholesale” refers to the provision of capacity on one or more DTT multiplexes for the broadcasting of programme material or data by a third party.

Annex 1: Eleven Mandatory Transmission Sites

StationName	Analogue Channels in use	FTN Mux Chan	BCI Multiplexes																	
			Mux A						Mux B						Mux C					
			Restrictions			Restrictions			Restrictions			Restrictions			Restrictions			Restrictions		
			ERP Ch. (dBW)	Post ASO Restriction (dB)	Bearing	Pre ASO Restriction (dB)	Bearing	* End date	ERP Ch. (dBW)	Post ASO Restriction (dB)	Bearing	Pre ASO Restriction (dB)	Bearing	* End date	ERP Ch. (dBW)	Post ASO Restriction (dB)	Bearing	Pre ASO Restriction (dB)	Bearing	* End date
CAIRN HILL 53N4825, 07W4258 Site Ht: 277m Antenna Ht: 129m Polarisation: H	40 43 46 50	47	52	none			44	52	none				51	52	none					
CLERMONT CARN 54N0443, 08W1919 Site Ht: 510m Antenna Ht: 116m Polarisation: V	52 56 66 68	53	52	33-45 110-120	20 21	10-50 60-160	63	52	27 16	10-50 60-160	27 16	Q1 2013 end 2009	60	52	33-45 110-120	20 21	10-50 60-160	27 16	Q1 2013 end 2009	
HOLYWELL HILL 54N5856, 07W2405 Site Ht: 260m Antenna Ht: 65m Polarisation: H	23 26 29 33	30	43	175-185	8	61-80 108-115 126-217	32	43	10 10 9	61-80 108-115 126-217	10 10 9	Q2 2011 Q1 2013 Q1 2013	35	43	175-185	8	61-80 108-115 126-217	10 10 9	Q2 2011 Q1 2013 Q1 2013	
THREE ROCK 53N1449, 08W1411 Site Ht: 448m Antenna Ht: 130m Polarisation: H	29 33 35 55	54	51	340-0 28-41 45-90	3 6 12	340-0 20-45 45-160	61	51	15 22 29	340-0 28-41 45-90	15 22 29	Q1 2013 Q2 2009 end 2010	64	51	340-0 20-45 45-160	3 20-45 45-160	340-0 20-45 45-160	15 22 29	Q1 2013 Q2 2009 end 2010	
KIPPURE 53N1038, 08W1955 Site Ht: 750m Antenna Ht: 120m Polarisation: H	62 59	54	53	ERP and antenna pattern to be agreed as part of SFN with Three Rock for pre and post ASO. The outgoing interference of the SFN must be less than that of the GE06 assignment for Three Rock			61						64		ERP and antenna pattern to be agreed as part of SFN with Three Rock for pre and post ASO. The outgoing interference of the SFN must be less than that of the GE06 assignment for Three Rock					
MAGHERA 52N5803, 08W4308 Site Ht: 400m Antenna Ht: 150m Polarisation: H	66 68 48	48	52	none			59	52	none				55	52	none					

* The end date for pre ASO restrictions is a guide and may change depending on the implementation of DTT in the UK. The pre and post ASO restrictions may overlap in some cases. The post ASO restrictions will always be in place. Some channels may change post ASO due to the availability of better channels which are currently used by analogue television. Restrictions based on final antenna heights after mast height increases at Truskmore, Mullaghinish and Holywell Hill.

Site coordinates are given in Latitude, Longitude format.
e.g. 51N5121, 08W3106 means 51 degrees 51 minutes 21 seconds north, 8 degrees 31 minutes 6 seconds west

StationName	Analogue Channels in use	FTN Mux Chan	BCI Multiplexes																					
			Mux A						Mux B						Mux C									
			Ch. (dBW)	ERP (dBW)	Post ASO Bearing	Post ASO Restriction (dB)	Pre ASO Bearing	Pre ASO Restriction (dB)	* End date	Ch. (dBW)	ERP (dBW)	Post ASO Bearing	Post ASO Restriction (dB)	Pre ASO Bearing	Pre ASO Restriction (dB)	* End date	Ch. (dBW)	ERP (dBW)	Post ASO Bearing	Post ASO Restriction (dB)	Pre ASO Bearing	Pre ASO Restriction (dB)	* End date	
MOUNT LEINSTER	26 23	45	39	52	145-165	4	7-8 14-17 33-47	7 6 11	Q1 2013 Q1 2013 end 2009	42	52	110-130	7	14-17 33-47 53-56	6 11 6	Q1 2013 end 2009 end 2009	49	52	110-130	7	7-8 14-17 75-77	7 6 10	Q1 2013 Q1 2013 end 2009	
52N3706, 08W4643 Site Ht: 796m Antenna Ht: 110m Polarisation: H																								
MULLAGHANISH	27 31	21	24	53	none	none	80-140	6	Q1 2010	28	53	104-124	10	85 88-90 75-85	9 9 12	end 2009 end 2009 end 2009	32	53	104-124	10	85 88-90 75-85	9 9 12	end 2009 end 2009 end 2009	
51N5854, 09W0844 Site Ht: 650m Antenna Ht: 220m Polarisation: H																								
SPUR HILL	53 57 60 63	45	66	47	none	none	80-90	8	end 2009	42	47	none	none	83-97	10	Apr 2010	49	47	none	none	83-97	10	Apr 2010	
51N5121, 08W3100 Site Ht: 137m Antenna Ht: 50m Polarisation: H																								
TRUSKMORE	60 63	53	57	52	107-116	3	52-54 107-116	3 8	Q1 2013 end 2009	52	52	none	none	20-25 58-60	8 8	Q1 2013 Q1 2013	56	52	none	none	20-25 58-60	8 8	Q1 2013 Q1 2013	
54N2225, 08W2218 Site Ht: 640m Antenna Ht: 170m Polarisation: H																								
WOODCOCK HILL	39 42 45 49	47	41	40	none	none	none	none	none	44	40	none	none	none	none	none	51	40	none	none	118-123	8	end 2009	
52N4319, 08W4125 Site Ht: 244m Antenna Ht: 55m Polarisation: H																								

* The end date for pre ASO restrictions is a guide and may change depending on the implementation of DTT in the UK. The pre and post ASO restrictions may overlap in some cases. The post ASO restrictions will always be in place. Some channels may change post ASO due to the availability of better channels which are currently used by analogue television. Restrictions based on final antenna heights after mast height increases at Truskmore, Mullaghanish and Holywell Hill.

Site coordinates are given in Latitude, Longitude format.
e.g. 51N5121, 08W3106 means 51 degrees 51 minutes 21 seconds north, 8 degrees 31 minutes 6 seconds west

StationName	Analogue Channels in use	FTN Mux Chan	BCI Multiplexes																						
			Mux A						Mux B						Mux C										
			ERP (dBW)	Ch.	Post ASO Bearing	Post ASO Restriction (dB)	Pre ASO Bearing	Pre ASO Restriction (dB)	* End date	Ch.	ERP (dBW)	Post ASO Bearing	Post ASO Restriction (dB)	Pre ASO Bearing	Pre ASO Restriction (dB)	* End date	Ch.	ERP (dBW)	Post ASO Bearing	Post ASO Restriction (dB)	Pre ASO Bearing	Pre ASO Restriction (dB)	* End date		
SUIR VALLEY 52N2224, 07W1546 Site Ht: 280m Antenna Ht: 45m Polarisation : V	53 57 63 52	52	33	66	none	107	6	Aug 2009	36	33	none	107	6	Aug 2009	66	33	none	107	6	127	6	Aug 2009	107	6	Aug 2009
ACHILL 53N5726, 10W0135 Site Ht: 366m Antenna Ht: 50m Polarisation : V	40 43 50 41	41	40	44	none	127	6	Aug 2009	47	40	none	85-105	6	Aug 2009 Feb 2010	47	40	none	107	6	127	6	Aug 2009	107	6	Aug 2009
ARANMORE 54N6859, 08W3027 Site Ht: 125m Antenna Ht: 45m Polarisation : V	39 42 49 41	41	36	44	none		none		47	36	none		none		47	36	none				none				
CASLA 53N1721, 09W3334 Site Ht: 10m Antenna Ht: 55m Polarisation : V	39 42 49 41	41	34	44	none		none		47	34	none		none		47	34	none				none				
CASTLETOWNBERE 51N8822, 10W0003 Site Ht: 460m Antenna Ht: 43m Polarisation : V	53 57 63 55	55	40	59	none		none		62	40	none		none		62	40	none				none				
CLIFDEN 53N3024, 09W5618 Site Ht: 270m Antenna Ht: 50m Polarisation : V	22 25 32 23	23	40	23	none		none		26	40	none		none		26	40	none				none				
CROSSHAVEN 51N4728, 08W1739 Site Ht: 91m Antenna Ht: 45m Polarisation : V	55 59 65 45	45	27	66	none		none		42	27	none		none		42	27	none				none				

StationName	Analogue Channels in use	BCI Multiplexes																						
		Mux A				Mux B				Mux C														
		Restrictions			ERP (dBW)	Restrictions			ERP (dBW)	Restrictions			ERP (dBW)	Restrictions										
		Post ASO Bearing	Restriction (dB)	Pre ASO Bearing		Post ASO Bearing	Restriction (dB)	Pre ASO Bearing		Post ASO Bearing	Restriction (dB)	Pre ASO Bearing		Post ASO Bearing	Restriction (dB)	Pre ASO Bearing								
Ch.	24	24	27	24	24	27	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24			
FTN Mux Chan	21	24	24	27	24	27	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	
DROGHEDA 55N4114, 06W2532 Site Ht: 100m Antenna Ht: 20m Polarisation: V		53	57	44	60	44	60	44	60	44	60	44	60	44	60	44	60	44	60	44	60	44	60	44
KILDUFF 52N4956, 07W5439 Site Ht: 446m Antenna Ht: 100m Polarisation: H		58	61	64	55	59	34	62	34	62	34	62	34	62	34	62	34	62	34	62	34	62	34	62
FANAD 55N1336, 07W0949 Site Ht: 220m Antenna Ht: 30m Polarisation: V		21	24	31	22	25	24	28	24	28	24	28	24	28	24	28	24	28	24	28	24	28	24	28
FALCARRAGH 55N0816, 08W1032 Site Ht: 98m Antenna Ht: 40m Polarisation: V		21	24	31	22	25	24	28	24	28	24	28	24	28	24	28	24	28	24	28	24	28	24	28
IORRAS 54N1623, 09W4931 Site Ht: 260m Antenna Ht: 15m Polarisation: M		21	24	31	22	25	27	28	27	28	27	28	27	28	27	28	27	28	27	28	27	28	27	28
KILKEEVERAGH 51N6202, 10W2000 Site Ht: 360m Antenna Ht: 60m Polarisation: V		39	42	49	41	44	39	47	39	47	39	47	39	47	39	47	39	47	39	47	39	47	39	47

Annex 3: Coverage Prediction Parameters

- Prediction model: as specified in ITU-R 525/526 and ITU-R 526
- Clutter attenuation: deygout + Subpath attenuations as ITU-R 526 with no tropo-scattering.
- Resolution of terrain database shall, at a minimum, be 200m. An earth radius of 8500 km shall be used for both land and sea coverage for 50% of the time.
- Receiving antenna height: 10m above ground level
- Minimum signal level for the coverage plot shall be determined with reference to the modulation scheme and FEC code rate proposed (it should correspond to that given in ComReg document 07/90b) as follows:
 - Channels 21-37: table 19 plus 4.5dB,
 - Channels 39-51: table 19 plus 7dB, and
 - Channels 52-68: table 19 plus 8.5dB.

For example:

for 16QAM 3/4	for 64QAM 2/3
53.2dB μ V/m at channel 29	57.0dB μ V/m at channel 29
55.7dB μ V/m at channel 45	59.5dB μ V/m at channel 45
57.2dB μ V/m at channel 60	61.0dB μ V/m at channel 60

These values are for ninety nine percent (99%) location availability for one multiplex or ninety five percent (95%) location availability for six multiplexes at channels 29, 45 and 60 respectively. A further 4dB increase is required to provide 99% location availability for six multiplexes.

Annex 4: Financial Projection Templates

A **set** of financial projections consists of three templates covering:

- Profit & loss
- Cashflow
- Balance sheets

Applicants shall provide **two sets** of projections; one for its main or base-case business plan and one for the sensitivity test for a situation where revenues are reduced by ten percent (10%) in each year of the licence period relative to the base-case.

The necessary templates are contained in an Excel workbook. An applicant shall complete the worksheets, retaining the structure set out in the templates (it may, if necessary, may insert additional rows).

Applicants are required to transfer copies of the completed worksheets into the main application document as a series of annexes, cross-referenced as appropriate from the main body text in the application.

Profit & Loss Projections (1 of 2)

	(Year ending 31 December)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Profit & Loss Projections															
Customer Base															
Retail customers	(Mid-year figures)														
	Number of basic subscription customers														
	Number of premium subscription customers														
	Other customers (please specify)														
Wholesale customers	Please specify types and numbers for each														
Revenue															
Retail activities	€'000 (Constant 2008 prices)														
	Subscription income (Basic packages)														
	Subscription income (Premium packages)														
	Other delivery-based income (e.g. pay-per-view)														
	Advertising (e.g. EPG banner advertising)														
	Other income (please specify)														
Wholesale activities	Platform carriage fees														
	Technical support services fees (e.g. CA)														
	Other income (please specify)														
Other	Other revenue not included above (please specify)														
	Sub-total														
	Sub-total														
	Sub-total														
	Total revenue														

Profit & Loss Projections (2 of 2)

	(Year ending 31 December)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Operating Expenditure															
Retail activities															
	Subscriber management & billing														
	Marketing and sales														
	Support for acquisition of DTT receiver equipment														
	Other subscriber acquisition costs														
	Sub-total														
Programme content															
	Content acquisition fees - basic channels														
	Content acquisition fees - premium channels														
	Own-production costs														
	Costs associated directly with provision of NI material														
	Sub-total														
Multiplex operation															
	Coding & multiplexing														
	Distribution (to tx sites)														
	Other communications costs (e.g. programme feeds)														
	Monitoring/Compliance fees														
	Sub-total														
Transmission services															
	Transmitter network operation & maintenance														
	Power														
	Contribution to capital recovery (if relevant)														
	Sub-total														
Technical services															
	Centralised Service Information														
	Conditional access facilities														
	LCN administration														
	Receiver upgrade arrangements														
	EPG provision														
	Sub-total														
Administration															
	Licence fees and other regulatory charges														
	Management and legal fees														
	Other staff costs														
	Accommodation costs														
	Sub-total														
Other															
	Contribution to DTT promotion/ASO activity														
	Other (please specify)														
	Sub-total														
	Total Operating Expenditure (before depreciation)														
D&A															
	Depreciation														
	Amortisation														
	Sub-total														
	Total Operating Expenditure (after D&A)														
Operating Profit (EBIT)															
	€'000 (Constant 2008 prices)														
Net interest payable															
Tax															
Profit After Tax															
	€'000 (Constant 2008 prices)														

Balance Sheet Projections

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Net Assets	€000 (Constant 2008 prices)													
Fixed assets														
Plant & equipment														
Other (please specify)														
Current assets														
Trade receivables														
Cash and equivalents														
Other (please specify)														
Current liabilities														
Accounts payable														
Other (please specify)														
Long-term liabilities														
Borrowings														
Other (please specify)														
Capital	€000 (Constant 2008 prices)													
Capital														
Share capital														
Retained profit (loss)														
Other (please specify)														

Annex 5: Market Data Template

A **set** of financial projections consists of three templates covering:

- Profit & loss
- Cashflow
- Balance sheets

Applicants shall provide **two sets** of projections; one for its main or base-case business plan and one for the sensitivity test for a situation where revenues are reduced by ten percent (10%) in each year of the licence period relative to the base-case.

The necessary templates are contained in an Excel workbook. An applicant shall complete the worksheets, retaining the structure set out in the templates (it may, if necessary, may insert additional rows).

Applicants are required to transfer copies of the completed worksheets into the main application document as a series of annexes, cross-reference as appropriate from the main body of the application text.

Market Data (1 of 2)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Market Projections														
Market size in Ireland (000) at mid-year														
Population														
Number of TV households														
Number of pay-TV households (all platforms)														
DTT households* (000) at mid-year														
<small>(* based on platform for primary TV)</small>														
DTT households														
Premium subscribers														
Basic-only subscribers														
FTA-only														
Total														
Projected demand (000)														
DTT receiver sales														
Set-top boxes														
Integrated digital televisions														
Total														
DTT Pay services														
Basic subscription package only														
Premium subscription package														
Other (please specify)														
Total														
DTT-enabled TVs (000) at mid-year														
Primary TVs														
Free-to-air only														
Pay														
Sub-total														
Secondary TVs														
Free-to-air only														
Pay														
Sub-total														
Total														

Market Data (2 of 2)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Market Projections														
Breakdown of households with DTT-enabled secondary TVs*														
Free-to-air only households														
(*) by platform for primary TV														
(000) at mid-year														
Analogue (inc. UK channels)														
Analogue (Irish channels only)														
Satellite (freesat)														
DTT														
Other (please specify)														
Sub-total														
Pay TV households														
Satellite														
Digital cable/MMDS														
Analogue cable/MMDS														
DTT														
IPTV														
Other (please specify)														
Sub-total														
Total														