

Co-ordinated ComReg/Ofcom Spectrum Award in 1785 - 1805 MHz

Ofcom

Date: 8 February 2006

Seminar outline

- Section 1 – Introduction Peter Bury
- Section 2 – Coordinated approach Brian Last
- Section 3 – Spectrum packaging & rights Steve Jones
- Section 4 – Technical conditions Steve Jones
- Questions and answers

Introduction – Purpose of the seminar

- The purpose of this seminar is to present the proposals of ComReg and Ofcom for the co-ordinated award of available spectrum: 1785 – 1805 MHz .
- This is also an opportunity to answer stakeholders' questions on the proposals and receive feedback.
- The consultation document should be taken as the description of ComReg's and Ofcom's proposals and their status.
- These slides will be published on ComReg's and Ofcom's websites.

Introduction – The awards programme

- A new milestone in co-operation between the Commission for Communications Regulation (ComReg) and the Office of Communications (Ofcom).
- Radio spectrum is a vital input to electronic communications services and networks.
- Radio waves can pass freely across national borders.
- Opportunity to explore innovative approaches to securing optimal use of the radio spectrum for the benefit of citizens and consumers throughout the island of Ireland.
- Potential to create and develop wireless-based electronic communications services throughout the island of Ireland for the benefit of citizens and consumers in both jurisdictions.

Next Steps



- Analysis of responses
- Prepare statement, IM and draft Regulations

- Prepare final Regulations
- Update IM (if necessary)

- Auctions can start once Regulations are in force

- 2006/7



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Co-ordinated approach

- For jurisdictional reasons the two auctions must be separate legal processes.
- Coordinated approach. This means that, as far as possible, the key elements of the proposed spectrum packaging and licensees' rights and obligations, whilst legally separate in each jurisdiction, will be identical.
- Packaging and rights. The key elements of the proposed spectrum packaging and licensees' rights and obligations are structured to be as similar as possible.
- Potential benefits. In order to provide an opportunity for service providers to use the spectrum as efficiently as possible and to address the largest possible market it is proposed to plan and award wireless telegraphy licences in a co-ordinated way.

Co-ordinated approach - Common elements (i)

Spectrum packaging and Licensing

Spectrum band. 1785 to 1805 MHz: 20 MHz of un-paired spectrum

Interference to/from other users. Technology and application neutral
'block edge' spectrum mask

Application restrictions. Both licences will be application and technology neutral to the maximum extent possible

Co-ordinated approach – Common elements (ii)

Spectrum packaging and Licensing

Number of licences. One licence in Ireland and one in Northern Ireland

Licence term. 15 years.

- Ireland: 15 years, review within 3 years before end
- Northern Ireland: minimum 15

Licence fees. Determined by outcomes of legally separate auctions

Co-ordinated approach – Common elements (iii)

Award mechanisms and Rules

Basic auction format. Sealed bid

Sequence. Ireland then Northern Ireland

Winners. Highest bid. Lots to be drawn in event of ties

Co-ordinated approach – Common elements (iv)

Award mechanisms and Rules

Payment terms. Winners required to pay 100% of fee before licences are issued

Pricing rule. Winning bidders will pay the second highest price bid for that licence

Transparency. Registration process. Identities of bidders and winners to be made public

Co-ordinated approach – Common elements (v)

Award mechanisms and Rules

Prohibitions. Rules to prohibit collusion

Reserve Prices.

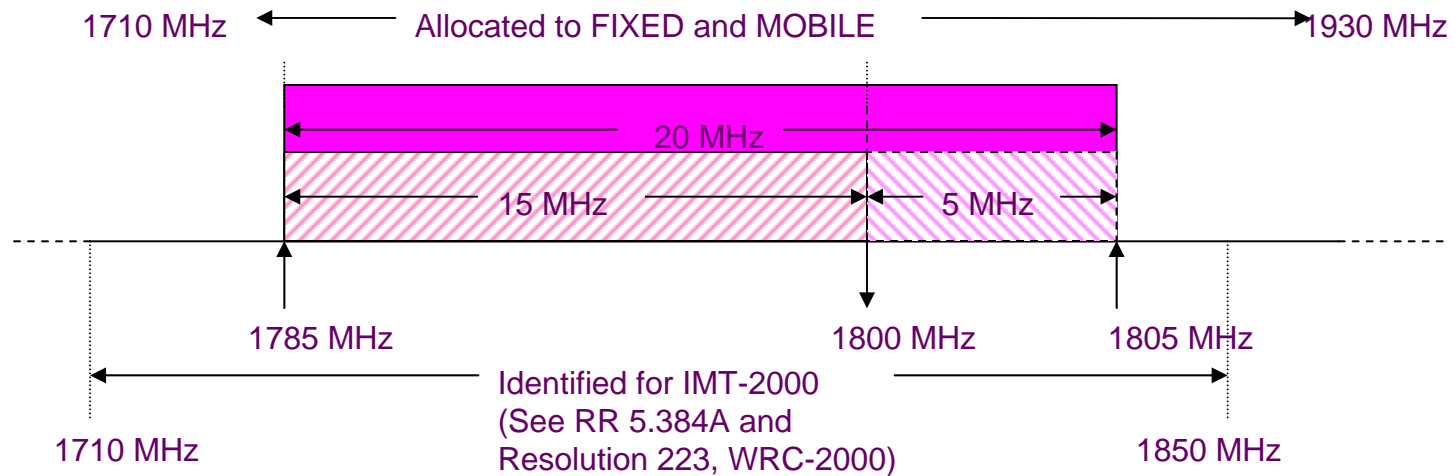
- Reserve price for Ireland licence: €150,000
- Reserve price for Northern Ireland licence: £50,000

Deposits. Cash deposit equal to 50% of amount bid

Seminar outline

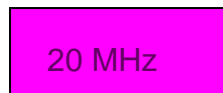
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The Spectrum Band

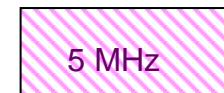


Key

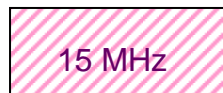
Spectrum Block to be awarded



Former TFTS “air-to-ground” band (RR 5.380)



Short range devices



Spectrum Packaging & Rights

The available spectrum

- The spectrum block to be auctioned is **20 MHz** from 1785-1805 MHz and is **un-paired**.
- Transmission rights will include:
 - a maximum equivalent isotropic radiated power (EIRP) of 56 dBm per MHz within the Spectrum Band.
- Licensees will have to adhere to a technology and application neutral block edge mask.
- An out-of-block limit for unwanted emissions of -126 dBm per 100 kHz is proposed.



Spectrum Packaging & Rights

Rights and obligations

- The licence will be **technology and application neutral**.
- The licence in Northern Ireland will be **tradable**.
- In Northern Ireland the licence will have an indefinite term with a **minimum term of 15 years** (see following slide).

Spectrum Packaging & Rights

Licence term

- The licence in Northern Ireland will be of indefinite term with a **minimum term of 15 years**.
- After the minimum term of 15 years the licence will be subject to **5 years notice of revocation** for spectrum management purposes, which could lead to the licence being terminated the day after the expiry of the 15 year minimum term or any time thereafter.
- During the 15 year minimum term Ofcom's power to revoke the licence will be limited (it cannot be revoked on spectrum management grounds).

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Technical conditions

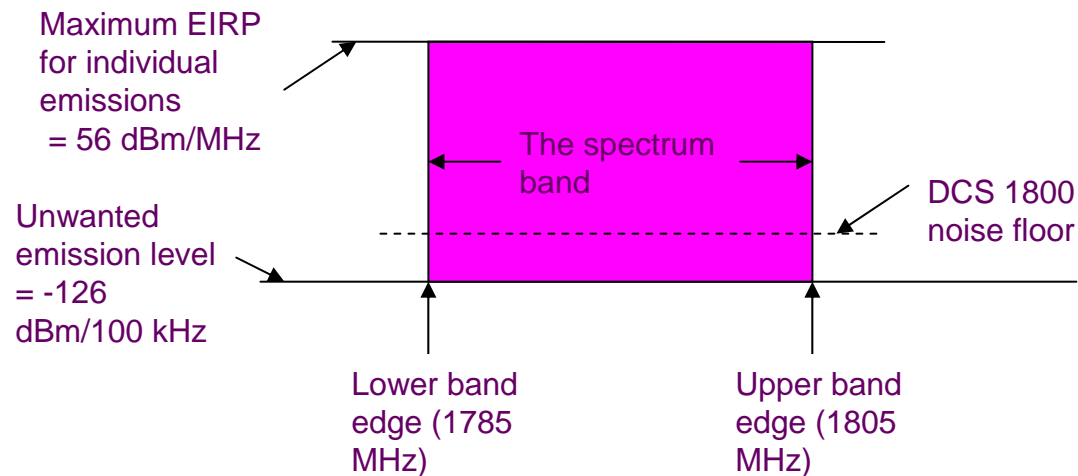
Summary

- Spectrum transmission rights
 - Power levels and out of block emissions.
- International co-ordination
- Sitefinder.

Technical conditions

Basis for proposals

- Spectrum rights reflect the need to protect the adjacent users.
- Any technologies permitted provided that they meet the limits defined by the Block Edge Mask:

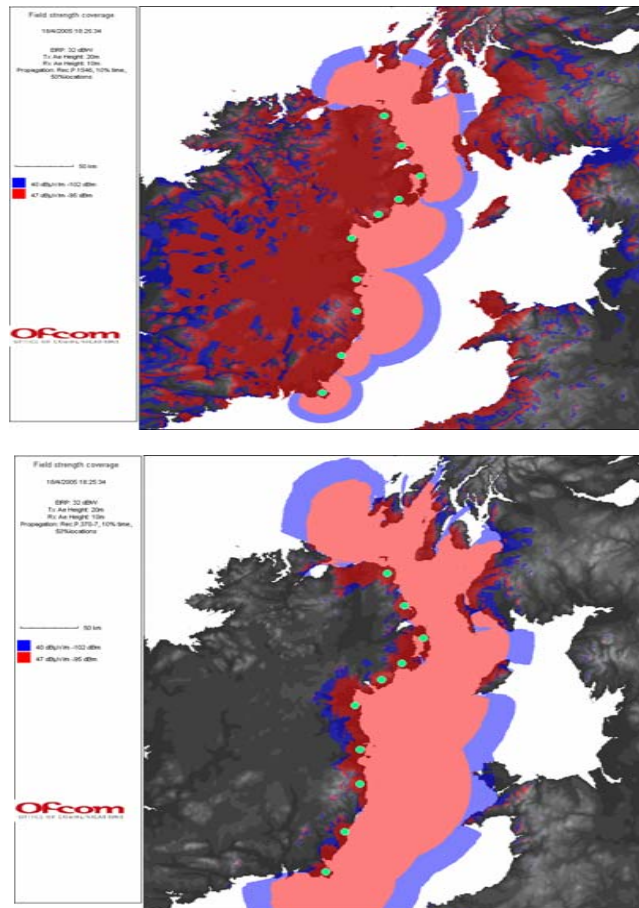


Technical conditions

Power level

- It is proposed to set the maximum radiated power that may be used in the Spectrum Band at 56 dBm/MHz EIRP.
- No guard bands will be used outside the Spectrum Band and licensees must meet the block edge mask. The limit of -126 dBm/100 kHz will apply to all unwanted emissions including spurious and out-of-band emissions.

Technical conditions



Co-ordination

- Reference network developed to illustrate general co-ordination requirements.
- Co-ordination will be needed when separate networks are deployed within 50km to 70km of the border and the licences are held by different companies in Ireland and Northern Ireland. Under this circumstance ComReg and Ofcom will require licensees to respect the field strength requirements contained in any co-ordination agreements negotiated between the administrations for the Spectrum Band.

Technical conditions

Other issues

- Sitefinder
 - It is the Government's wish that any licence holders who use any of the currently covered technologies (GSM, UMTS and TETRA) should be invited to volunteer information for Sitefinder on the same basis as the current mobile operators.
 - Ofcom will therefore invite the 1785 – 1805 MHz Northern Ireland licensee to participate as appropriate.



Questions and answers