

CONSULTATION PAPER

Future Regulation of Electronic Communications Networks and Services

Charging Principles for Authorisations and Rights of Use

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Oifig an Stiúrthóra Rialála Teileachumarsáide Office of the Director of Telecommunications Regulation

Abbey Court, Irish Life Centre
Lower Abbey Street, Dublin 1, Ireland
Tel. +353 1 804 9600 Fax. +353 1 804 9680 E-mail info@odtr.ie

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Foreword

This consultation in the latest in a series of consultations on the future framework for

authorisations under the new EU Directioves for electronic communications and

services. In our Spectrum Strategy document (ODTR01/81) the Office indicated that

it expected to issue a paper on new approaches for calculating licence fee structures

in Autumn 2002. In our consultation on 'Gereral Authorisaton Conditions' (ODTR

02/72) the issue of how the ODTR will be funded was raised in general terms. This

paper is the first round of detailed consultation on the future charging principles for

Authorisations and Rights of Use under the new EU Directives for electronic

communications networks and services.

The charging principles will have a financial impact on the Office and on those

subject to the new Directives and it is important that these issues are addressed at an

early stage to ensure that licencees can measure the impact of such charging

principles on any financial projections they make.

I would be glad to have responses from all quarters. These are important matters and

I look forward to reviewing the responses to the consultation, which will help ensure

that the charging regime is appropriately framed for the future.

Etain Doyle

Director of Telecommunications Regulation

1 Introduction

The Office of the Director of Telecommunications Regulation (ODTR) was established on 30 June 1997. Its functions were specified in the Telecommunications (Miscellaneous Provisions) Act, 1996 and relate to the regulation and licensing of the telecommunications industry including radio and broadcasting transmission. As the agency for the management of spectrum in Ireland, the ODTR oversees the issue of licences for use in television, radio, mobile cellular phones, cordless telephones, radio navigation systems and equipment used in industry, medicine and commerce. In September 2000 the Office also became responsible for the regulation of postal services.

The ODTR is funded wholly by income received from the broadcasting, radio, telecommunications and postal industries. The attached Appendix titled 'Financial Profile of ODTR' provides further detail on how the Office is funded.

The new package of legislative measures published by the European Union on 24th April 2002 (which must be applied in Member States from July 25th 2003), will introduce a number of changes in the manner in which electronic communication networks and services will be regulated. In particular, in most cases, individual licences will be replaced by a general authorisation, supplemented where appropriate with individual rights of use to use radio frequencies and numbers. Further general background information on the new authorisation regime can be found in the following previous ODTR documents:

- Doc 02/72: Future Regulation of Electronic Communications Networks and Services – Consultation on General Authorisation Conditions
- Doc 02/51: Future Regulation of Electronic Communications Networks and Services – Response to Consultation on Future Regulation of Electronic Communications Networks and Services

 Doc 02/22: Consultation on the Future Regulation of Electronic Communications Networks and Services

The new regulatory framework makes specific provisions for how national regulatory authorities (NRAs) may recover the costs associated with carrying out their regulatory functions and for the application of specific fees for rights of use. In setting the latter, NRAs may take due regard of the need to ensure the optimal use of such resources. The introduction of the new regime therefore provides an opportunity to review the current regulatory fee structure applied by the ODTR. In conducting this review, it is the Director's objective to maintain the progress that has been made over the last five years, in particular to ensure that Ireland continues to provide an attractive and cost-effective environment to deliver services whilst promoting the efficient use of spectrum resources.

The purpose of this document is to review the current fee regime for the regulation of electronic communications in Ireland, having regard to the functions of the Office, consider the implications of the new EU legislation and seek views the broader principles underlying future charging regimes. Responses will be taken into account by the Director in developing specific proposals for a future fee regime, which will be the subject of a further consultation in early 2003.

The information in this document should not be considered to represent legal or commercial advice and readers should seek appropriate professional advice appropriate to their own circumstance. This document is without prejudice to the legal position or the rights and duties of the Director to regulate the market generally. Any views expressed are not binding and are without prejudice to the final form and content of any decisions the Director may issue.

2 Responding to the Consultation

The consultation period will run from 28th November 2002 to 10th January 2003. Written comments should be marked "Response to ODTR Fees and Charges consultation paper" and submitted either electronically or in hard copy before 5.00 p.m. on 10th January 2003, to:

Elaine Kavanagh

The Office of the Director of Telecommunications Regulation

Abbey Court

Irish Life Centre

Lower Abbey Street

Dublin 1

E-mail: kavanaghe@odtr.ie

All comments are welcome, and should reference the relevant question numbers from this document (for convenience a summary list of the questions is at Section 6).

The Director expects to publish a report on this consultation. If there are elements of any response that are commercially confidential, then it is essential that these be clearly identified and placed in a separate annex to the main document. They will then be treated in confidence. The Director regrets that it will not be possible to enter into correspondence with those supplying comments.

3 Current and New EU Framework relating to Regulatory Fees

3.1 Current Situation

The legal basis for the imposition by the Director of Regulatory Fees is detailed in the Telecommunications (Miscellaneous Provisions) Act, 1996. This Act provided for the transfer of functions (which included the imposition of fees) from the then Minister for Transport, Energy and Communications to the Director. In addition the 1996 Act also provided for the imposition by the Director of a Levy on providers of telecommunications services in order, inter alia to meet expenses properly incurred by the Director in the discharge of her function under the Act.

The fee regime currently operated by the ODTR is based partly on recovery of administrative costs and partly on the application of specific fees associated with the use of radio spectrum.

Fees applied by the ODTR and other national regulatory authorities (NRAs) in the EU for providers of telecommunications networks and services must be consistent with the requirements of the EU Licensing Directive¹. This defines two types of payment that can be applied by NRAs, namely:

- i) Administrative Fees, which are intended to cover the costs of issuing and maintaining individual licences and general authorisations, and
- Spectrum Charges, which may reflect the need to ensure the optimal use of scarce resources and also the development of innovative services and competition.

The Licensing Directive is transposed into Irish law as S.I. 96 of 1998, the European Communities (Telecommunications Licences) Regulations. The scope of the Licensing Directive and Regulations covers the provision of telecommunications services, including the establishment and/or operation of telecommunications

¹ Directive 97/13/EC of the European Parliament and the Council of 10th April 1997 on a common framework for general authorisations and individual licences in the field of telecommunications services (O.J L 117/15, 07.05.97).

networks required for the provision of such services. It does not extend to other forms of electronic communication, such as radio and television broadcasting or distribution.

Currently, five specific categories of regulatory fee exist in Ireland namely:

- Telecommunications levy (Administrative) which is currently 0.2% of relevant operators' turnover
- Telecommunications Act 1996 licence fees (Administrative) which are one off fees to cover the administrative costs for the granting and management of telecommunications licences.
- Spectrum access fees (Spectrum) which in the past have been charged on a once
 off basis for 2G and over a number of years for 3G mobile spectrum
- Wireless Telegraphy licence fees (a mix of Administrative Fees and Spectrum Charges, depending on the type of licence) which are recurring fees relating to the use of particular spectrum bands
- Television Distribution licence fee which is currently 3.5% of relevant operators' turnover and which is not within the scope of the Licensing Directive

Any surplus of telecommunications administrative income (i.e. levy) over related administrative expenses must be refunded to industry. In practice this has not happened because expenses have exceeded income and most of the Office's income has come from Wireless Telegraphy licence fees. Any overall surplus on these fees, however must, on the request of the relevant minister, be paid over to Government.

Each of the current charges is described briefly in section 4, along with a reference to relevant legislative texts, and a brief comparison with the situation that applies in other European countries.

3.2 The New EU Framework

The new EU regulatory framework is enshrined in five key legislative instruments, namely:

- the **Framework Directive**, which sets the overall context and defines overall principles and approaches,
- the Authorisation Directive, which describes the mechanisms through which services and networks may be provided, including the conditions which may be applied to operators,
- the Access Directive, which describes how networks and service may be accessed and how interconnection between public network and service providers will be regulated
- the Universal Service Directive, which considers how universal service will be protected and regulated and also addresses consumer rights, and
- the **Spectrum Decision** relating to a regulatory framework for radio spectrum policy in the European Community.

For a detailed description of each of these instruments, please refer to the previous ODTR consultation on "Future Authorisations (Document ODTR 02/22, March 2002).

Article 3 of the Framework Directive states that 'Member States shall ensure that national regulatory authorities exercise their powers impartially and transparently'. In addition the recital states that 'Member States should guarantee the independence of the national regulatory authority..... with a view to ensuring the impartiality of their decision. ... National Regulatory authorities should be in possession of all the necessary resources, in terms of staffing, expertise, and financial means, for the performance of their tasks.' The concept of the independence of the ODTR was recognised in the explanatory memorandum which accompanied the Telecommunications (Miscellaneous Provisions) Bill, 1996 where it was stated 'Section 6 provides for the financing of the costs incurred by the Director in carrying out his or her functions through the imposition of levies on providers of telecommunications services and the retention of licence fees which are payable under the functions transferred to the Director. This is required to ensure that the Director achieves real independence in the exercise of his or her functions.'

Similar comments were made in the International Telecommunication Union's report titled 'Trends in Telecommunications Reform 2002' where it states 'the ability to obtain sufficient... funding can, if managed properly, yield at least two

results: *effectiveness* and *independence*.... In other words, why create a separate agency if you then starve and suffocate it through lack of funding? The result is likely to be a critical failure of economic regulation in communications industries, which governments increasingly are identifying as vital to achieving overall economic and social growth'.

The Authorisation Directive includes a number of provisions relating to administrative charges for general authorisations and fees for rights of use. In addition the recital to the Directive states (by way of clarification) that:

- a) Administrative Charges may be imposed in order to finance the activities of the national regulatory authority in managing the authorisation scheme.
 These may be either turnover related or flat rate.
- b) In addition usage fees may be levied for the use of radio frequencies or numbers as an instrument to ensure the optimal use of such resources. They may consist entirely or partly of once off payments and may be used to finance the activities of NRAs that cannot be covered by administrative charges.

One of the key changes that the new regulatory framework introduces is to extend the scope of coverage beyond telecommunications networks and services, to include all electronic communication networks and services in a technologically neutral way. This raises two major issues. There may be an argument for treating networks used for TV distribution in the same way as the rest of the telecommunications industry which would imply a harmonisation of the basis for fees and charges. Furthermore, it raises the question as to the treatment of broadcast transmission operators such as RTE and whether they should also be subject to administrative charges and/or spectrum usage fees.

3.3 Implications for ODTR Fee Regime

The Director does not anticipate any significant change in the overall level of fees applied by her Office. Having reviewed staffing and overall expenditure levels within the Office and compared them to other European NRAs it is clear that ODTR costs compare very favourably (See Appendix), particularly in the light of the relatively small population in the country and the fact that the Office is a relatively

young organisation and as such it had to purchase expertise externally as it had not developed all the necessary skills in-house. The office is to be transformed into a new three person commission and has planned its resources to be able to operate in the far more complex environment of new EU directives to be introduced in 2003. Approval has recently been obtained on foot of a case made by the ODTR for staffing levels to increase to a maximum of 120. Once the office has been fully staffed at that level the Director would not expect overall costs to increase much beyond the rate of inflation generally although this will depend on the scope of the new Commission's responsibilities in the future.

There are a number of specific areas where the new EU Framework provides an opportunity to review current fee policy and address in more detail charging principles considered in earlier consultations² These include:

- The approach to recovery of ODTR costs
- Application of Congestion and/or Incentive Pricing to encourage efficient use of spectrum
- Pricing of radio spectrum based on its economic value
- Charges in relation to broadcasting services and spectrum

Section 4 of this document describes the existing fee structure applied by the ODTR in more detail, while section 5 outlines a number of proposals that the Director is considering with regard to each of the above issues.

The attached financial appendix provides detail on the ODTR's revenues and costs together with a comparison with those of other NRAs.

² See ODTR 01/31 ODTR Radio Spectrum Management – Planning for thr Future – Response to the Consultation and ODTR 01/81 Strategic Management of the Radio Spectrum in Ireland.

4 Review of Current Situation in Ireland

4.1 Overview of current fee regime

The following sections describe the five categories of regulatory fee applied by the ODTR

4.2 Telecommunications Levy

The telecommunications levy is intended to recover the related costs of the ODTR's regulatory activities.³ All holders of licences issued under the Telecommunications Act are subject to a levy based on their relevant turnover. Where turnover is less than \in 634,869, a minimum levy of \in 1,016 per annum is applied. Similar levies are applied in a number of other EU countries, namely Austria, Greece, Spain, Sweden and the UK, and vary between 0.08% and 0.5% of turnover.

4.3 Spectrum Access Fees

Spectrum Access Fees are charged subject to the Wireless Telegraphy Act, 1926 and are applied as a single, up-front payment for the right to use radio spectrum. Such licences are awarded by means of a comparative selection procedure. To date, spectrum access fees have been applied to second and third generation public mobile services (GSM and UMTS). The spectrum access fee is applied in addition to annual wireless telegraphy licence fees (see below).

4.4 Wireless Telegraphy (WT) Licence Fees

WT licence fees apply to all licences issued under the WT Act. The fees are intended to recover the costs associated with issuing and maintaining WT licences and, where appropriate, to encourage efficient use of radio spectrum. Hence fees vary depending upon the type of service, the frequency band and the amount of spectrum that is licensed. The following table presents a summary of the WT fees currently levied by ODTR

³ The levy is provided for under section 6 of the Telecommunications (Miscellaneous Provisions) Act, 1996 and the terms are defined by S.I. N° 43 of 1998 (the Levy Order) and S.I. N° 229 of 1998 (Levy Amendment Order).

Service	Legislative basis of fees	Current fee(s)
Business Radio	S.I. No. 320 of 1949	€22 per annum per station plus €22 per annum fixed fee
Community Repeaters	S.I. No. 83 of 1988.	€625 for first year, €1,000 per annum thereafter.
Mobile Radio Systems	S.I. No. 435 of 2002	€625 per channel, per base station in first year.
		€1,000 per channel, per base station P.A. thereafter
Fixed Links (Point to point)	S.I.No. 319 of 1992	€571.38 (< 1 GHz) per link p.a
point)		€761.84 (> 1 GHz, b/w < 3.5 MHz) per link p.a.
		$\mbox{\ensuremath{\mathfrak{C}}952.30}$ (> 1 GHz, b/w \geq 3.5 MHz) per link p.a.
Fixed Links (Point to	S.I.No. 319 of 1992	€1,142.76 (< 1 GHz) per link p.a
multi-point)		$\mbox{\&fl.} 1,523.69 \ \mbox{(> 1 GHz, b/w < 3.5 MHz) per link p.a}$
		€1,904.61 (> 1 GHz, b/w \ge 3.5 MHz) per link p.a
Experimenters	No.450 of 2002	€12 on issue, €10 for each subsequent renewal
Aircraft Radio	1926 Act & others	€3.80 (once off)
Ships Radio	1926 Act	€3.80 P.A.
Satellites:		
	G I N 261 62000	Station fees range from €100 to €5,000
VSAT	S.I. No. 261 of 2000	P.A.
TES		
LES		
Teleports	S.I. No. 18 of 2001	€100,000 approx. p.a.over 5 years. These are very large systems providing multi Gbts capacity far in excess of all of the other elements listed in this table, and which require international co-ordination and hence there are significant costs involved in administering such licences
FWA	S.I. No. 287 of 1999	2.0-2.3GHz, 3.4-3.6GHz and 10.1-10.7GHz Spectrum:€762 per MHz on issue, €1,333 1st renewal, €1905 p.a. thereafter. 2.4-2.5GHz Spectrum: €381 per MHz on issue, €666 1st renewal, €952 p.a. thereafter.
	S.I. No.467 of 2002	24.5 - 26.5GHz Spectrum: 6500 per MHz on licence issue and on each subsequent renewal.p.a. These fees were reduced following a consultation exercise in 2002.
GSM	S.I No. 442 of 1999	900MHz Spectrum: €25,394.76 per 200KHz channel P.A. 1800MHz Spectrum: (200KHz channel) 1st block of 24 channels @ €12,697.38 per channel. 2nd block of 24 channels @ €19,046.07 per channel and 3rd block of

		24 channels @ €25,394.76 per channel. P.A.
UMTS (3G)	S.I. No. 345 of 2002	900MHz Spectrum: €25,395 per
		200KHz channel P.A.
		1800MHz Spectrum:
		1st block of 24 channels @ €12,697 per
		channel. 2nd block of 24 channels @
		€19,046 per channel and 3rd block of 24
		channels @ €25,345 per channel. P.A.
		3G Spectrum:
		Per 2x5MHz in the 1920-1980MHz &
		2110-2170MHz bands; €634,870 Per 5 MHz in the 1900-1920 & 2020-
		2025MHz bands; €317,435 p.a.

A similar range of service-specific fees relating to the licensed use of radio spectrum exists in most other EU countries. Spectrum used for broadcast transmission in Ireland is also licensed by the ODTR under the 1960 Broadcasting Act and the 1988 Radio and Television Act and provisions for licensing digital terrestrial television are contained in the Broadcasting Act 2001 but the spectrum is not currently subject to a licence fee. The ODTR has computerised almost all of the application and management of these services and generally achieves turnaround times of 3 to 5 days for standard applications which are correctly presented.

4.5 Telecommunications Act Licence Fees

Licence fees apply to Basic and General telecommunications licences, which reflect the administrative costs associated with issuing those licences. The fees are currently €2,500 for a Basic licence which has a term of 5 years and €12,500 for a General licence which has a term of 15 years, payable at the time of licence issue.

4.6 Television Distribution Licence Fees

Cable, MMDS and deflector operators who distribute television programme services under licences also issued under the Wireless Telegraphy Act are subject to a licence fee of 3.5% or 5% (in respect of analogue cable licences) of relevant turnover. The distribution of television programme services by satellite is not currently licensed by the ODTR and consequently payment of a licence fee does not arise for this activity.

4.7 Treatment of Surpluses

The Director is required (under the Telecommunications (Miscellaneous Provisions) Act 1996, to surrender any surplus of income over expenditure to the Exchequer. Such a surplus will only arise where telecommunications licence fee income exceeds the related expenditure. It should be noted that under the Levy Order (S.I. 43 of 1998), any surplus of levy income over related expenditure must be returned to those who paid the levy; it cannot be paid over to the Exchequer. The 2002 Communications Act which is to commence on 1 December operates in the same way as the 1996 Act.

5 Future Options for fee regimes

5.1 Introduction

In reviewing the fee regime to take account of the new EU Framework, the Director is seeking to further her broader regulatory objectives and the similar objectives of the Commission for Communications Regulation (as detailed in the Communications Regulation Act 2002) which include maintaining and developing sustainable competition in the communications markets, ensuring transparency and clarity in how fees are set and promoting the optimal use of scarce radio spectrum. She believes that whilst the current overall level of fees broadly meets these objectives, there are specific areas where some adjustment to the manner in which fees are levied may be appropriate. It is also necessary to make certain changes to reflect the increased scope of networks and services addressed by the new EU regulatory framework. The Director proposes, however that the overall effect of any changes will be broadly neutral in revenue terms.

Under the new EU Authorisation Directive, individual rights of use are provided for where there is a risk of harmful interference. In the case of spectrum usage, the Director's first preference is to exempt radio equipment from licensing where possible, next to provide access to spectrum on a first come first served basis and only if neither of these are appropriate, to run special competitions. Fees for rights of use will apply only in the latter two cases. According to the Directive, such fees may be used as an instrument to ensure the optimal use of scarce resources and may therefore in some cases be set at a level that exceeds the costs directly attributable to the right of use concerned. Revenue so generated may be used to cover regulatory costs that have not been recovered by other means such as administrative charges.

5.2 Charging Principles

The new regulatory regime provides an opportunity to review our policy on charges and progress further issues raised in previous consultations. A number of issues will need to be carefully considered prior to developing specific proposals, including:

- Approach to recovery of ODTR costs
- Congestion pricing

- Incentive Pricing to encourage spectrum efficiency
- Charges for broadcasting spectrum
- Pricing of radio spectrum based on economic value

A number of approaches can be taken to setting fees for rights of use. A simple, cost recovery approach may be appropriate in some cases, for example in areas or frequency bands where there is no scarcity of spectrum. However, as demand for radio spectrum has increased significantly over the years, and appears likely to continue to grow for the foreseeable future, such an approach is unlikely to meet the objective of optimal use of this finite resource. Note that in considering these issues the Director is not seeking an increase in overall fee levels, rather a more equitable apportionment of fees on the basis of the spectrum resource consumed.

5.3 Approach to recovery of ODTR costs

The ODTR incurs a variety of costs in performing its regulatory duties. Some of these are directly related to the administration costs of particular rights of use categories which are not used to provide services on a commercial basis. The Director proposes that these costs (see 5.8 below) would be recovered by means of a fixed administrative charge (as discussed below in section 5.5). Other costs, such as the general costs of ensuring compliance with interconnection or other regulations including broadcasting transmission cannot be so easily attributed and must be recovered by some other equitable means. Currently such costs are recovered in part by means of, a levy on the turnover of licensed telecommunications operators, from the revenue generated from radio spectrum fees and from a licence fee charged on Cable, MMDS and deflector licensees who distribute television programme services.

The benefits of the levy system are acknowledged in the text of the EU Authorisation Directive (Recital 31), which states that

"An example of a fair, simple and transparent alternative for these charge attribution criteria could be a turnover related distribution key".

The Director believes that the current 0.2% levy on turnover represents a fair apportionment of non-attributable costs and that it complies with the requirement to be objective, transparent and proportionate and therefore proposes a turnover related administrative charge to be levied in much the same way as the current telecoms

levy to be set at 0.2% of turnover subject to a minimum fixed payment of €1,016. Currently, income generated by the telecoms levy does not cover all the ODTR's costs. However, since fees for rights of use for some categories of spectrum (see 5.9) are set with regard to ensuring optimal use of scarce resources, rather than on a cost recovery basis, the revenue generated from them is likely to exceed the directly attributable costs associated with the rights of use, and some of this revenue may be used to cover costs that have not been recovered via the proposed turnover based Administrative Charge. Costs directly associated with the issuing and maintaining of rights of use are by definition capable of attribution to the right of use concerned and need not therefore be recovered via the levy scheme.

The Director therefore proposes for the time being to effectively retain the levy as a turnover related administrative charge at its current level of 0.2% of turnover, and that where the revenue generated from fees for rights of use is surplus to the costs directly attributable to those rights of use, to recover the balance of the Office's non-attributable costs from that surplus. Should the surplus in the future be insufficient to cover the balance of the non-attributable costs, the administrative charge levy will be adjusted accordingly. The Director considers that such a scenario is unlikely in the light of current expectations of regulatory obligations and is of the view that the levy should remain at 0.2% of turnover. In the last audited financial year (2000 - 2001), approximately 40% of the ODTR's total costs were recovered through the levy and this proportion did not change substantially in 2002.

Question 1. Do you agree that the ODTR's costs which are not recovered from particular users of spectrum as described in Question 4 below should be recovered in part through a turnover related administrative charge and in part through fees for spectrum rights of use?

Question 2. Do you consider that the current balance between levy and licence fee income (as used by the ODTR) is appropriate?

Question 3 Do you agree with the proposed structure for administrative charges?

5.4 Fees for Private Radio Networks

Some electronic communications networks, such as private mobile radio (PMR) are used solely for the user's own benefit, rather than to provide services on a commercial basis to third parties. The Director's view is that, in the interests of

proportionality, the costs associated with general authorisations and rights of use for non-public radio networks should be recovered via a single annual payment incorporated into the fee for the right of use, and that such non-public systems should not be subject to the telecommunications levy. At present certain types of licence fees e.g. fees for Ships Radio licences do not cover the costs associated with the issue of those licences and hence there may have to be some rebalancing of charges across the various licence types to ensure the related costs are recovered. This approach is consistent with recital 31 of the Authorisation Directive, which states that:

"where administrative charges are very low, flat rate charges...could be appropriate".

Question 4 Do you agree that, where the costs associated with issuing and maintaining a general authorisation are low (i.e. in the case of non-public networks) and the authorised party is also subject to a charge relating to a right of use of radio spectrum, a single, fixed annual charge should apply? If you do not agree, please provide supporting arguments

5.5 Implications for Broadcast Transmission Networks

This new EU framework does not cover broadcast content services. This has implications for the manner in which operators of broadcast transmission networks are regulated in Ireland.

Currently, cable, MMDS and deflector licensees who distribute television programme services under licences also issued under the Wireless Telegraphy Act are subject to a licence fee of 3.5% of relevant turnover. No fees are currently charged for the use of broadcasting spectrum, or to recover the costs associated with licensing broadcast spectrum under the 1960 Broadcasting Act, the 1988 Radio and Television Act and the Broadcasting Act 2001. Therefore operators of terrestrial radio-based broadcast transmission networks (excluding links), such as RTE and commercial radio and television broadcasters are not liable to any spectrum fee.

Broadcasting is included for the first time within the scope of the new EU framework, in recognition of the move towards convergence. Whilst it is clear that broadcast transmission systems and television distribution networks are subject to the Directives and content is not, it is noted that there is some debate as to whether

access to content is included in the framework. This raises the question of whether there should be any distinction in how different delivery platforms are treated. In addition Section 12.6 of the Communications Regulation Act, 2002 states that 'The Commission shall take the utmost account of the desirability that the exercise of its functions..... does not result in discrimination of favour of or against particular types of technology'. One option would be for all providers of electronic communication networks or services to be subject to the same regulatory cost recovery regime, i.e. for the current 0.2% telecommunications levy on turnover to apply uniformly to all providers. Similarly, a uniform regime could be applied in relation to the granting and maintaining of rights of use of radio spectrum. This would imply that all providers of electronic communications networks or services that require individual rights of use for radio spectrum, including operators of broadcast transmission networks, would be subject to an appropriate fee for such rights.

The ODTR is mindful of Article 5(2) of the Authorisation Directive which states "Without prejudice to specific criteria and procedures adopted by Member States to grant rights of use of radio frequencies to providers of radio or television broadcast content services with a view to pursuing general interest objectives in conformity with Community law, such rights of use shall be granted through open, transparent and non-discriminatory procedures." Recital (8) of the Radio Spectrum Decision states "Radio spectrum policy cannot be based only on technical parameters but also needs to take into account economic, political, cultural, health and social considerations." Furthermore Article 8 (1) of the Framework Directive states that "National regulatory authorities may contribute within their competencies to ensuring the implementation of policies aimed at the promotion of cultural and linguistic diversity as well as media pluralism".

The manner in which such fees may be determined, and how fees may be applied to broadcast providers, is addressed in later sections of this document.

Question 5 Should operators of broadcast transmission systems be subject to the same regulatory regime as other providers of electronic communication networks or services to the public? In particular should broadcast transmission systems be subject to similar general authorisation requirements to other providers and should they be subject to the same administrative charging regime, i.e. application of a 0.2% levy on turnover.

Question 6 Should operators of broadcast transmission networks using radio spectrum be subject to a fee for such rights of use, and if so do you have a view on how such fees should be determined?

In the case of satellite systems, where transmissions originate from outside Ireland, reception nevertheless may depend on access to spectrum which is free of other services that might otherwise interfere with reception. This can represent a constraint on the national spectrum resource, particularly where the spectrum is allocated to other services such as fixed links which may suffer spectrum scarcity in other frequency bands. Where the presence of satellite communications has an impact on the use of spectrum in Ireland by other services, or entails other spectrum management activity on the part of the ODTR (e.g. enforcement activity to prevent interference), there may be a case for applying a right of use fee to reflect the imposition of limitations on other users, or the costs incurred in managing the spectrum. Such an approach, described as "recognised spectrum access (RSA)" was recently proposed in a public consultation document issued by the UK Radiocommunications Agency. Under the UK's proposal, a voluntary RSA fee would be payable which would provide a satellite service provider with similar rights to those conferred on other holders of spectrum rights of use. Non-payment of the fee would not prevent the satellite service provider from using the spectrum but would mean that it may have to contend with potential interference from other legitimate services sharing the spectrum, reflecting the current situation in Ireland.

Question 7 Should satellite service providers have the opportunity to acquire spectrum rights of use similar to those held by operators of terrestrial radio networks, and if so what level of fees should apply to such rights?

5.6 Congestion Charging

Congestion in a radio spectrum context arises when it becomes difficult or impossible to accommodate additional demand for frequency assignments. Congestion can be dealt with in a number of ways, including:

- Promoting spectrum-efficient technology;
- Closing the affected bands or locations to prohibit further congestion;
- Allocating additional spectrum to the affected services;
- Migrating some users to other bands;
- Congestion charging, i.e. setting a higher fee in frequency bands and/or geographic areas where demand for spectrum is particularly high.

The Director already has in place some measures to address congestion, for example by requiring shorter microwave point to point links to operate in the higher frequency bands where more capacity is available (link length policy). Congestion is not a serious problem in most geographical areas in Ireland but where it does occur, congestion charging is likely to provide an effective means of managing it. Congestion charging, if applied selectively, could provide a helpful stimulus to encourage the migration of radio systems in congested area to alternative platforms, so freeing spectrum for other uses.

Congestion charging is currently used for fixed links by ten of the fifteen EU Member States. Usually this involves setting a higher fee for the use of lower frequency bands, where congestion is more likely to occur. Only two countries, Spain and the UK, currently take account of geographic congestion as well. These two countries also apply geographic congestion charging to private mobile radio.

One application of congestion charging under consideration by the Director is to apply it to fixed link licences in geographical areas in certain frequency bands where there are difficulties in making new frequency assignments due to the already heavy use of the bands in that area.. An example could be fixed links to and from Three Rock Mountain, a popular location used for routing traffic in and out of the Dublin area. If congestion charging was applied here it could mean that the licence fee for a direct link via Three Rock would be for example, 100% greater than for a fixed link

assignment in a less congested area e.g., at the current licence fee rates a wideband 18GHz link would cost €1,000 in a non-congested area compared to €2,000 in a congested area..

Question 8 Do you agree that a premium should be charged for congested spectrum? Which services ought to be subject to congestion pricing, and what parameters ought to be taken into account in determining the fee? Do you think that the kind of pricing implied in the example above is the appropriate approach?

5.7 Incentive charging to promote efficient spectrum use

A further way in which charging can be used to address congestion is by applying a higher fee to systems which make relatively inefficient use of spectrum. Incentive charging can take a number of forms, for example:

- i) Bandwidth based: this involves charging a fee that increases in line with the total bandwidth licensed, and is already applied to some types of licence in Ireland e.g. GSM Extending this approach to systems such as fixed links could provide an incentive for operators to upgrade equipment to more efficient modulation schemes, reducing the amount of spectrum required.
- ii) Area based: this involves charging a fee that increases in line with the geographic coverage of a station, and is particularly suited to services such as business radio. For example, applying a higher fee for a wider area system than for an on-site system would reflect the very different demand on total spectrum resource of the two systems.
- iii) Exclusivity based: involves charging a fee that reflects the degree of sharing that a licensee will tolerate on a frequency channel. The highest fee would apply for exclusive use of a channel and a progressively lower fee would apply depending on the number of sharers;
- iv) Capacity based fee based on the level of traffic or number of stations using the licensed channel.

v) Escalator - whereby mature systems that may be capable of migration to alternative platforms or technology are subject to a higher fee. For example, microwave links in congested areas could be subject to progressive fee increases at five yearly intervals to encourage consideration of alternative platforms such as fibre, or upgrading to more bandwidth-efficient radios.

Incentive pricing can also be applied to specific frequency bands to encourage the use of those which are less likely to suffer congestion. For example, a relatively simple approach for fixed links would be to define a "reference link" that would represent the mid-range of fee values and be charged at the standard link fee. A premium would then be applied for links using higher bandwidths or lower frequency bands where spectrum scarcity is more of a problem. So, if the reference link was of 10 - 20 MHz bandwidth and in the frequency range 20 -30 GHz, the standard fee would apply. Then a premium or discount could be applied to fixed links depending on the bandwidth and frequency band of the link in question as follows:

Bandwidth: if less than 10 MHz then a discount of 50% would apply; if between 20 and 30 MHz then a premium of 50% would be applied and if greater than 30 MHz then a premium of 100% would apply;

Frequency bands: above 30 GHz a discount of 50% would apply, in the frequency range 10 - 20 GHz a premium of 50% would be applied, and below 10 GHz the premium would be 100%.

Multiplying the standard link fee by the relevant premium / discount would yield the actual fee, hence very broadband links below 10 GHz would pay four times the current fee and narrow band links above 30 GHz would pay only a quarter of the current fee, providing a strong incentive to use the higher bands and modern equipment that requires less bandwidth. This is a similar, but simpler approach to that used in various other countries such as UK, Spain etc. Note however, that this should not be confused with administrative pricing as the total revenue generated would still be essentially cost based.

Some of these approaches may be used in combination to achieve the desired result, for example in the case of a shared business radio channel it would probably be necessary to apply both exclusivity and capacity based parameters.

Question 9 Do you have a view on how incentive charging might be applied to radiocommunication services in Ireland, with particular regard to the examples given above?

Question 10 Do you have a view on whether an escalating fee, such as the example given above, would support the objective of optimising spectrum utilisation? In particular, which services ought to be subject to escalating fees and how long after the initial licence is issued ought a higher fee to apply?

Question 11. Are you aware of any other approaches to incentive charging that might prove beneficial in achieving optimum spectrum utilisation?

5.8 Spectrum Pricing

Spectrum pricing involves the setting of fees using an administrative process, which takes account of factors such as the potential use of the spectrum concerned, the level of demand, and the extent to which the use of the spectrum may achieve other objectives such as promotion of competition or delivery of new services. Spectrum pricing has been adopted in a number of EU countries and is sometimes referred to as "administrative pricing". Note that the term "administrative pricing" should not be confused with Administrative Charges, as defined in the EU Authorisation Directive, which must be strictly related to NRA costs.

Spectrum pricing is already applied in Ireland to services which have been licensed under beauty contests. These include 2G and 3G mobile, and fixed wireless access. However it has not been applied to other services that are licensed on a first come, first served basis.

The Director does not propose any changes at this stage as to how spectrum pricing is applied in Ireland. She is of the opinion that current arrangements, in conjunction with any possible changes in relation to congestion or incentive pricing as discussed above should be sufficient to optimise usage of spectrum for now.

Question 12 Do you agree with the Director's proposed approach in relation to spectrum pricing?

5.9 Numbering Resources

The new EU framework makes provision for the NRA to charge fees for individual rights of use of telephone numbering resources. Any such fees would reflect a need to ensure the optimal use of these resources and/or would cover administration costs.

Industry respondents to a previous consultation (ODTR 00/97) were generally not in favour of charging (see report in Decision Notice D11/01) but opinions may well have changed since 2000. The Director would welcome views from respondents on this issue.

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Question 13 Do you have a view on whether access to numbering resources should in the future be subject to charges for individual rights of use, and if so what would be an appropriate level of fee to apply?

5.10 Conclusions

This document has sought to highlight the implications of the new EU regulatory framework for the ODTR's regulatory fee structure. A number of proposals relating the Office's approach to cost recovery and the setting of fees for spectrum rights of use have been put forward and comments invited. The proposals are not intended to change significantly the overall level of fees applied by the Office, but will have implications for the manner in which these are apportioned to specific licensees or authorisation categories.

6 Summary of Issues for Consultation

- 1. Do you agree that the ODTR's costs which are not recovered from particular users of spectrum (as described in Question 4 below) should be recovered in part through the levy scheme and in part through fees for spectrum rights of use?
- 2. Do you consider that the current balance between levy and licence fee income (as used by the ODTR) is appropriate?
- 3. Do you agree with the proposed structure for administrative charges?
- 4. Do you agree that, where the costs associated with issuing and maintaining a general authorisation are low (i.e. in the case of non-public networks) and the authorised party is also subject to a charge relating to a right of use of radio spectrum, a single, fixed annual charge should apply? If you do not agree, please provide supporting arguments.
- 5. Should operators of broadcast transmission systems be subject to the same regulatory regime as other providers of electronic communication networks or services to the public? In particular should broadcast transmission systems be subject to similar general authorisation requirements to other providers and should they be subject to the same administrative charging regime, i.e. application of a 0.2% levy on turnover.
- 6. Should operators of broadcast transmission networks using radio spectrum be subject to a fee for such rights of use, and if so do you have a view on how such fees should be determined?
- 7. Should satellite service providers have the opportunity to acquire spectrum rights of use similar to those held by operators of terrestrial radio networks, and if so what level of fees should apply to such rights?
- 8. Do you agree that a premium should be charged for congested spectrum? Which services ought to be subject to congestion pricing, and what parameters ought to be taken into account in determining the fee? Do you think that the kind of pricing implied in the example above is the appropriate approach?

- 9. Do you have a view on how incentive charging might be applied to radiocommunication services in Ireland, with particular regard to the examples given above?
- 10. Do you have a view on whether an escalating fee, such as the example given in section 5.7, would support the objective of optimising spectrum utilisation? In particular, which services ought to be subject to escalating fees and how long after the initial licence is issued ought a higher fee to apply?
- 11. Are you aware of any other approaches to incentive charging that might prove beneficial in achieving optimum spectrum utilisation?
- 12. Do you agree with the Director's proposed approach in relation to spectrum pricing?
- 13. Do you have a view on whether access to numbering resources should in the future be subject to individual rights of use, and if so what would be an appropriate level of fee to apply?

Annex 1 Relevant text from Authorisation Directive

Recital 30: Administrative charges may be imposed on providers of electronic communications services in order to finance the activities of the national regulatory authority in managing the authorisation system and for the granting

of rights of use. Such charges should be limited to cover the actual administrative costs for those activities. For this purpose transparency should be created in the income and expenditure of national regulatory authorities by means of annual reporting about the total sum of charges collected and the administrative costs incurred. This will allow undertakings to verify that administrative costs and charges are in balance.

Recital 31: Systems for administrative charges should not distort competition or create barriers for entry into the market. With a general authorisation system it will no longer be possible to attribute administrative costs and hence charges to individual undertakings except for the granting of rights to use numbers, radio frequencies and for rights to install facilities. Any applicable administrative charges should be in line with the principles of a general authorisation system. An example of a fair, simple and transparent alternative for these charge attribution criteria could be a turnover related distribution key. Where administrative charges are very low, flat rate charges, or charges combining a flat rate basis with a turnover related element could also be appropriate.

Recital 32: In addition to administrative charges, usage fees may be levied for the use of radio frequencies... as an instrument to ensure the optimal use of such resources. Such fees should not hinder the development of innovative services and competition in the market. This Directive is without prejudice to the purpose for which fees for rights of use are employed. Such fees may for instance be used to finance activities of national regulatory authorities that cannot be covered by administrative charges. Where, in the case of competitive or comparative selection procedures, fee for rights of use for radio frequencies consist entirely or partly of a one-off amount, payment arrangement should ensure that such fees do not in practice lead to selection on the basis of criteria unrelated to the objective of ensuring optimal use of radio frequencies.

Recital 33: Member States may need to amend rights, conditions, procedures, charges and fees relating to general authorisations and rights of use where this is objectively justified. Such changes should be duly notified to all interested parties in good time, giving them adequate opportunity to express their views on any such amendments.

Article 12: Administrative charges

- 1. Any administrative charges imposed on undertakings providing a service or a network under the general authorisation or to whom a right of use has been granted shall:
 - (a) in total, cover only the administrative costs which will be incurred in the management, control and enforcement of the general authorisation scheme and of rights of use and of specific obligations as referred to in Article 6(2), which may include costs for international cooperation, harmonisation and standardisation, market analysis, monitoring compliance and other market control, as well as regulatory work involving preparation and enforcement of secondary legislation and administrative decisions, such as decisions on access and interconnection; and
 - (b) be imposed upon the individual undertakings in an objective, transparent and proportionate manner which minimises additional administrative costs and attendant charges.
 - 2. Where national regulatory authorities impose administrative charges, they shall publish a yearly overview of their administrative costs and of the total sum of the charges collected. In the light of the difference between the total sum of the charges and the administrative costs, appropriate adjustments shall be made.
- Article 13: Fees for rights of use and rights to install facilities. Member States may allow the relevant authority to impose fees for the rights of use for radio frequencies or numbers or rights to install facilities on, over or under public or private property which reflect the need to ensure the optimal use of these resources. Member States shall ensure that such fees shall be objectively justified, transparent, non-discriminatory and proportionate in relation to their intended purpose and shall take

into account the objectives in Article 8 of Directive 2002/21/EC (Framework Directive).

Annex 2 Article 8 of Framework Directive

Policy objectives and regulatory principles

1. Member States shall ensure that in carrying out the regulatory tasks specified in this Directive and the Specific Directives, the national regulatory authorities take all reasonable measures which are aimed at achieving the objectives set out in paragraphs 2, 3 and 4. Such measures shall be proportionate to those objectives.

Member States shall ensure that in carrying out the regulatory tasks specified in this Directive and the Specific Directives, in particular those designed to ensure effective competition, national regulatory authorities take the utmost account of the desirability of making regulations technologically neutral.

National regulatory authorities may contribute within their competencies to ensuring the implementation of policies aimed at the promotion of cultural and linguistic diversity, as well as media pluralism.

- 2. The national regulatory authorities shall promote competition in the provision of electronic communications networks, electronic communications services and associated facilities and services by inter alia:
- (a) ensuring that users, including disabled users, derive maximum benefit in terms of choice, price, and quality;
- (b) ensuring that there is no distortion or restriction of competition in the electronic communications sector;
- (c) encouraging efficient investment in infrastructure, and promoting innovation; and
- (d) encouraging efficient use and ensuring the effective management of radio frequencies and numbering resources.
- 3. The national regulatory authorities shall contribute to the development of the internal market by inter alia:
- (a) removing remaining obstacles to the provision of electronic communications networks, associated facilities and services and electronic communications services at European level;
- (b) encouraging the establishment and development of trans-European networks and the interoperability of pan-European services, and end-to-end connectivity;
- (c) ensuring that, in similar circumstances, there is no discrimination in the treatment of undertakings providing electronic communications networks and services;
- (d) cooperating with each other and with the Commission in a transparent manner to ensure the development of consistent regulatory practice and the consistent application of this Directive and the Specific Directives.
- 4. The national regulatory authorities shall promote the interests of the citizens of the European Union by inter alia:
- (a) ensuring all citizens have access to a universal service specified in Directive 2002/22/EC (Universal Service Directive);
- (b) ensuring a high level of protection for consumers in their dealings with suppliers, in particular by ensuring the availability of simple and inexpensive dispute resolution procedures carried out by a body that is independent of the parties involved;
- (c) contributing to ensuring a high level of protection of personal data and privacy;
- (d) promoting the provision of clear information, in particular requiring transparency of tariffs and conditions for using publicly available electronic communications services;
- (e) addressing the needs of specific social groups, in particular disabled users; and
- (f) ensuring that the integrity and security of public communications networks are maintained.