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Laurence Green Esq  
Radiocommunications Agency  
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**The Institution of  
Electrical Engineers**

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Dear Mr Green,

IEE is pleased to have this opportunity to comment on the Radiocommunications Agency consultative document – “Introducing Recognised Spectrum Access”. IEE’s 130,000 members are drawn from a broad range of engineering disciplines, including those directly concerned with the use of telecommunications throughout the whole radio spectrum; being involved in everything from technology innovations to the most senior levels of the industries in the scope of the subject matter of the Consultation.

In preparing its submission IEE have requested input from its Members and formulated a response to the Consultation’s list of questions.

IEE’s submission is in the form of an Annex, comprising a re-statement of the questions, and responses thereto.

If you require further information or amplification of any aspect of this submission, please do not hesitate to contact me.

Yours sincerely,

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**A response by the Institution of Electrical Engineers to the specific questions posed by Radiocommunications Agency in their Consultation Document “Introducing Recognised Spectrum Access”**

**Q1:** Do you agree in principle that RSA should be introduced for satellite services?

*A1: Introduction of Recognised Spectrum Access is welcomed in parallel with spectrum pricing, to promote efficient use of the satellite services spectrum. Introduction of RSA will also give satellite service providers confidence that their use is recognised and considered in future band planning. RSA for satellite services spectrum will be a major step forward in unifying the regulation of terrestrial and satellite spectrum.*

*However, the UK satellite service operators will be disadvantaged, compared to their European counterparts, if RSA is not concurrently introduced in Europe. Many satellite services are pan-European, which predicates that equal regulation must prevail across the European Community countries. The Radiocommunication Agency is urged to lobby for European uptake of RSA on equivalent time-scales, and with common regulations, as those scheduled for the UK. Harmonisation of satellite service regulation across Europe is regarded as essential.*

**Q2:** For which satellite services and in which bands should RSA be introduced?

*A2: For spectrum pricing to be effective RSA should be introduced on all satellite bands, and for all services, starting with the largest bandwidth users and progressing through to the smallest bandwidth users.*

**Q3:** How should the recognition granted by RSA be defined and what technical and other factors should be included?

*A3: The Consultation document’s initial proposals in this regard are endorsed as is the proposal that a full consultation will be carried-out for each band and service prior to RSA implementation.*

**Q4:** Would tradability of RSA and interchangeability with licenses be advantageous and how useful would it be in practice?

**A4:** *Satellite services are characterised by terrestrial up-links, and down-links, being within, typically, a footprint spanning a plurality of countries. As a consequence to guarantee access rights the introduction of RSA to the UK must be in harmony with its introduction in, at least, Europe. Without a guarantee of access rights trading of RSAs is considered unlikely. Conceptually unifying UK spectrum trading regulation across terrestrial and satellite service bands is considered to be desirable.*

**Q5:** Should RSA be perpetual or fixed term and what factors should be taken into account in deciding security of tenure?

**A5:** *RSA should be for fixed terms commensurate with typical European business model time-scales of, say, 5-10 years. Security of tenure requirements will be predicated by the business plan payback period, and ease with which RSA spectrum trade can be envisaged should the business plan falter.*

**Q6:** How should spectrum pricing principles apply to RSA?

**A6:** *The same principles should apply as those for terrestrial spectrum pricing, save that unit bandwidth costs will reflect the spectral scarcity and competition for access rights.*

**Q7:** How should administrative incentive pricing fees be calculated in practice.

**A7:** *Ofcom should apportion matching fees to a satellite spectrum permit as it would for an equivalent terrestrial service, where such a terrestrial service is feasible. By this means optimal usage of the whole radio spectrum may be engendered.*

**Q8:** Are there services other than satellite for which application of RSA could be advantageous?

**A8:** *Introduction of RSA with the satellite spectrum will generate experience that will help with the determination of its applicability, and suitability, to other spectral bands.*

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