



Response to
Radio Spectrum Management Review:
A Consultation Paper

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BBC RESPONSE TO RADIO SPECTRUM MANAGEMENT REVIEW: A CONSULTATION PAPER

1. Introduction

- The BBC welcomes the opportunity to feed in to the Spectrum Management Review, and focuses in this response on the specific issue of whether the spectrum used by broadcasters should be valued and/or charged for. The BBC hopes that this response will be useful, and would value the opportunity to make further contributions to the Review as it progresses.

2. Summary of BBC's views

- The BBC acknowledges that spectrum is a scarce resource and should therefore be allocated and used efficiently. The BBC has an interest in ensuring efficiency in its own use of spectrum, and over many years has invested time, effort and resources to deliver greater efficiency. The BBC welcomes the opportunity to consider further initiatives which might permit even greater efficiency in future and allow the full exploitation of valuable resources (Section 3)
- The BBC accepts that the Government needs to assess the opportunity cost of using terrestrial spectrum to deliver its broadcasting policies. In requiring broadcasters to use such spectrum to deliver services of public benefit, the Government is turning the spectrum into a public asset, rather than a commodity which can be traded on the open market. There is an implied cost involved, of which the Government needs to be aware. (Section 5)
- The BBC believes however that a very clear distinction must be made between the opportunity cost to the Government of allocating spectrum to broadcasting, the value of the public asset thus created, and the value, if any, of that spectrum to individual broadcasters – whether public corporations such as the BBC, or commercial organisations such as the ITV companies. (Section 6)
- It is solely for the Government to decide whether to turn spectrum into a public asset, and require broadcasters to use it. The opportunity cost is therefore of relevance only to the Government – it does not represent a genuine opportunity for the broadcasters to whom the public asset is entrusted, nor the “value” of the spectrum to the broadcaster. Any assessment of the value which spectrum might have to broadcasters themselves must take into account the opportunities broadcasters have to generate financial returns from its use, and the obligations and restrictions which the Government attaches to the use of that spectrum. (Section 6)

- By analogy, the Government can set aside land to create a public asset such as the Royal Parks, and assess the opportunity cost of doing so as opposed to allowing the land to be developed commercially. But once it has been decided to turn an otherwise tradable commodity into a public asset, that asset is entrusted to the relevant authorities to develop and maintain as a public amenity. The Royal Park authorities, in this example, would not expect to find themselves levied with a charge reflecting the “value” of the land entrusted to them, since they have no choice but to make it accessible as a public amenity – they can neither sell it nor develop it commercially in ways inconsistent with its public status. The value of the land to the Royal Parks authorities themselves is therefore not equal to the opportunity cost to the Government of creating a public asset out of the land, nor to its value to the public as an amenity, but only to any capacity which the authorities might have for generating a financial return from its stewardship. (Section 6)
- Following the analogy, if spectrum has a value to broadcasters, its level is not related to the opportunity cost to the Government of alternative uses, nor to the cost of alternative means of delivering services, but only to the financial benefit, if any, which the broadcasters themselves can derive from the use of that spectrum in providing the services laid down in statute. (Section 6)
- In the case of commercial broadcasters such as ITV, that financial benefit is already assessed within licence payments, taken together with the public service obligations placed upon the companies by their licences. It would be inequitable to levy any further charge on those companies, or to attempt to relate the implicit charge to the opportunity cost of the spectrum to the Government or any other external valuation. (Section 6)
- In the case of public corporations such as the BBC, the Parks analogy is absolute. Spectrum allocated to the BBC represents no value to the Corporation itself. It is a public asset, created by the Government, which is entrusted to the BBC for the sole purpose of delivering public services. The BBC has no means of realising a financial return from its use, nor the flexibility to cease using it or to switch to alternative means of delivering its services. No charge is therefore made for the spectrum entrusted to the corporation. It would be wrong and inequitable to levy any such charge. (Section 6)
- The BBC endorses the Review’s general assertion that spectrum pricing – ie. charging individual broadcasters – should not be an end in itself, and should only be employed where it genuinely creates real incentives for greater efficiency, to which broadcasters are free to respond. Otherwise, spectrum pricing could simply become an unavoidable tax on broadcasters. (Section 7)
- The BBC considers that, within the current broadcasting regulatory and legal framework, the practical opportunities available to broadcasters in general for economising on their use of spectrum are marginal only. In

particular, the BBC would take issue with the implication in the consultation paper that broadcasters are free to choose to migrate wholly to digital transmission, or to non-terrestrial platforms, in order to release terrestrial spectrum; under current Government policy, the existing terrestrial broadcasters have no such ability. (Section 8)

- The BBC believes that as the opportunities for reducing spectrum use by broadcasters generally are in practice marginal only, the imposition of a full spectrum pricing regime would therefore be a disproportionate and bureaucratic approach to the issue of ensuing spectrum efficiency. Far more effective would be:
 - a concerted drive by the broadcasters and Government to identify specific areas where greater efficiency might be deliverable without prejudicing the Government’s general policies for broadcasting, and to establish a regulatory and financial framework in which those efficiencies can be realised;
 - to allow sufficient flexibility in the regulatory and financial frameworks to encourage public service broadcasters to share capacity on “public sector” spectrum with commercial operators where this does not compromise the delivery of public services, and to enable them to reinvest any financial proceeds from such arrangements back into those public services – as suggested in paragraph 77 of the consultation paper.
- The BBC would wish to work with the Government to develop such approaches. (Section 8)

3. Spectrum efficiency – current and future initiatives

- The BBC understands the key rationale which is advanced for spectrum pricing in general – to bring home the value of spectrum to all those involved in its allocation or use, and so encourage efficient use of a scarce resource.
- The BBC fully endorses the need for spectrum efficiency, and shares the Government’s aim of maximising efficiency.
- It is not in the BBC’s interests to use spectrum inefficiently – the less efficient the BBC is, the fewer people can receive its services; and using a profligate range and pattern of frequencies for the transmission of a service is more expensive than using spectrum more efficiently – ie. the more spectrum is used, the more it costs the BBC in investment in transmission infrastructure and in paying commercial charges to transmission providers.
- Spectrum being a finite resource and universality being a goal rather than a reality, there is constant debate between different service providers as to the appropriate amount of spectrum to allocate for different broadcasting

purposes. The BBC shares responsibility for the allocation of broadcasting spectrum with the regulators of commercial broadcasters. There is a constant tension between these competing uses. A competitive element is thereby introduced, under which each side keeps the other under close scrutiny to ensure that they do not remove from the pot any more spectrum than they require. This helps ensure that spectrum is used efficiently across broadcasting as a whole, including incentives for the development of new, more efficient, broadcasting technologies.

- For example, there is a tension between the obligation on the BBC to provide local radio services to the widest possible audience and the desire of the commercial radio sector to provide ever more local commercial radio stations. In recent years, the BBC developed FM radio broadcasting technology, opening up new possibilities for investment in radio services of high technical quality and more efficient spectrum use. Since, however, commercial broadcasters were initially reluctant to invest in a new market, the Government established a policy of the BBC giving up existing AM radio spectrum for licensing to commercial radio stations and progressively transferring its own services to FM. Through the BBC's substantial technological and financial investment in rolling out FM transmitters and services, a considerable overall efficiency improvement was secured – ie. increasing competition in the market place and fitting more services into the spectrum available for broadcasting.
- Thus at the highest level of spectrum allocation between broadcasters there is an incentive for spectrum efficiency, driven by a quasi-competitive element in the allocation system. The system should operate to ensure that no one broadcaster is allocated more spectrum than is required for the delivery of its particular services.
- Within individual broadcasters, spectrum engineers have the job of ensuring that the most efficient use is made of the spectrum allocated to them. Their objective is to ensure the greatest possible reach at an acceptable broadcast quality level within that allocation.
- At the highest practical level, the BBC, ITC and Radio Authority, as well as individual broadcasters, already work closely with the Government to ensure the most efficient use of spectrum. For example, the broadcasters have put forward proposals which have the aim of bringing forward the date of full digital switchover, and so releasing some current broadcasting spectrum for reuse.
- The BBC acknowledges that despite the current incentives, there must remain opportunities for broadcasters to make efficiency savings at the margin. (The regulatory restrictions which in practice currently prevent wider-scale release of spectrum are explored in Section 8 below.) The BBC welcomes the opportunity to work with the Review and with the Government to explore creative options which might permit even greater spectrum efficiency in future, and so allow the full exploitation of valuable resources.

- For example, the Review highlights the potential for non-BBC services sharing capacity within the datastream of BBC broadcasts, where this is currently operating at below capacity. The BBC would be keen to explore the legal, regulatory and financial implications of commercial and public services sharing spectrum. In principle, the BBC would be happy to facilitate such initiatives, where they do not compromise existing or planned BBC services or generate additional costs.
- In ways such as this, the BBC is keen to continue to engage creatively with others to ensure the most efficient use of spectrum by broadcasters.

4. The levels at which spectrum valuation and pricing might have a role to play

- Where spectrum for broadcasting is concerned, spectrum valuation or pricing might in theory have a role to play at at least three levels:
 - In allocating spectrum for broadcasting use, the Government might wish to be aware of the value of the spectrum (were it to be put to other uses) so that a proper assessment can be made of the opportunity cost of meeting its public policy objectives for broadcasting and whether the benefits to be delivered are proportionate to that cost.
 - Once allocated for broadcasting, spectrum should be allocated between broadcasters through mechanisms which ensure that the full value to the nation – in terms either of the delivery of public services or of payments to the Exchequer – is extracted from that spectrum.
 - Once allocated to an individual broadcaster, incentives may be required to ensure the most efficient use of spectrum, and to release under-utilised spectrum where possible.
- The issues involved at each of these levels are not the same, and it does not follow that a value or price applied at one level is necessarily appropriate at another. Clear distinctions must be made between the different cases, as are explored in the following sections.

5. The allocation of spectrum for broadcasting

- The BBC agrees with the Review's conclusion that the Government needs to be aware of the full economic cost of the public policies which it pursues, including in the sphere of broadcasting.
- The BBC therefore accepts that the Government should properly assess the opportunity cost when deciding how much spectrum to allocate for broadcasting. That assessment might take into account the revenues which might be derived for the Exchequer, and any other benefits which might flow, from allocating the spectrum for other uses.

- In formulating broadcasting policies, including spectrum allocation, the Government will need to balance the opportunity cost against the perceived benefits derived through broadcasting use of the spectrum, which will include:
 - Near-universal public access to a wide, diverse range of broadcast services from several broadcasters;
 - The social/cultural benefits of public service broadcasting.
 Those benefits in turn will have to be balanced against non-financial benefits which could flow from alternative uses (such as benefits to the individual from services such as mobile telephony).
- Thus the opportunity cost of using spectrum for broadcasting is one relevant consideration in deciding whether to allocate spectrum for that use. But it is only one of a number of such relevant considerations, and the Government will need to weigh them all in determining its broadcasting policy framework.

6. *The allocation of spectrum between broadcasters*

- Once the Government has decided to allocate spectrum for broadcasting, taking into account the opportunity cost, the BBC would argue that the notion of an opportunity cost ceases to be generally relevant.
- Effectively, when the Government decides to bear the opportunity cost of requiring the use of terrestrial spectrum for broadcasting, it is turning an otherwise tradable commodity into a public asset. This is the case whether the broadcasting services in question are provided by public corporations, such as the BBC, or by private companies, such as the ITV companies.
- Once the public asset has been created, it is entrusted to broadcasters to allow them to deliver the public benefit which the Government is seeking. At this stage, the opportunity to reallocate spectrum for other uses is not a practical opportunity for the broadcasters to whom the spectrum has been allocated, whose sole role is to provide the broadcast services desired by the Government. Thus the *opportunity cost*, determined for the purposes of enabling the Government to determine its policies for broadcasting, has no meaning in application to particular broadcasters.
- By analogy, the Government has decided that hundreds of acres of central London should be set aside to create a public asset – the Royal Parks. The Government may well wish to assess the opportunity cost of doing so. The Government could in theory allow the land of the Royal Parks to be open to commercial building development, generating massive financial returns to the Exchequer. But the Government has decided instead to bear the opportunity cost of designating the land as a public amenity, from which comparatively little net revenue is derived – in other words, it has decided to turn an otherwise tradable commodity into a public asset.

- The Royal Parks are entrusted to the relevant authorities to develop and maintain as a public amenity, providing services consistent with the Government’s policy objective of ensuring universal public accessibility to the Parks. However, the Park authorities would not expect to find themselves levied with a charge reflecting the full “value” of the land entrusted to them. That would only make sense to the extent that the authorities had the flexibility either to develop the land commercially, to sell off the parts they considered least essential to deliver services to the public, or to move the Park to another part of the UK where land prices were not as high as in central London. Since in practice that any such flexibility is severely constrained, the Parks authorities do not face such a charge.
- The Parks authorities do, however, have a general responsibility to raise what commercial revenues they can from the Parks (through catering concessions, for example), only to the extent that it does not compromise their stewardship of the Parks as a public amenity, and to use those revenues to defray part of the cost of providing that amenity.
- Following the analogy, if spectrum has a value to broadcasters, its level is not related to the opportunity cost to the Government of alternative uses, or to the economic value of the spectrum to other users, but solely to the financial benefit, if any, which the broadcasters themselves can derive from the use of that spectrum.
- The Government’s current policy framework for broadcasting ensures the delivery of its various public policy objectives through a range of mechanisms, including:
 - The establishment of public corporations – the BBC, Channel 4 and the Welsh Authority (S4C) – to deliver particular public services.
 - The identification in legislation of certain public service attributes which should be delivered through the remaining (commercial) services which utilise UK-wide analogue terrestrial spectrum networks – Channel 3, Channel 5 and the national commercial radio services.
 - Providing incentives, in terms of “gifted” capacity, for existing terrestrial broadcasters to invest in new digital services which will drive digital take-up and therefore allow the early release of analogue spectrum.
 - Making remaining broadcasting spectrum available for the delivery of services which deliver no specific public service objectives, but add generally to choice in the broadcasting marketplace.
- How spectrum is allocated to broadcasters, and whether an explicit or implicit charge for spectrum is made, varies between these categories:

- In the case of public corporations established to provide particular public services, it is recognised that any benefit from the use of the spectrum is a *benefit for the nation* (and the Government, whose own objectives are thereby delivered), *not for the broadcaster*, which has no choice but to deliver the services it has been established to deliver, no incentive (and, in the BBC’s case, no opportunity) to derive a profit from the use of the spectrum, and no shareholders to whom to return any profit. The Parks analogy is absolute. The Government having decided that the opportunity cost *to the nation* of the spectrum is proportionate to the public benefit to be delivered, no explicit charge for the spectrum is made *to the broadcaster* to whom it is entrusted to enable the delivery of public services. The BBC believes that it would be wrong and inequitable to levy any such charge on such broadcasters.

- In the case of other broadcasting services with statutory public service obligations, these are provided by commercial organisations with shareholders. The licences for these services are therefore open to competitive auction from time to time. Bidders must weigh the public service obligations to which they will be subject against their ability to turn the licence to account. Thus bidders for those licence must make an allowance for the value of the spectrum in their bids, and this value must therefore be properly reflected in payments to the Exchequer. Imposing an additional charge, specifically for spectrum, whether related to the opportunity cost to the Government or to any other external considerations, would therefore be inequitable.

- Access to “gifted” digital spectrum by existing terrestrial broadcasters is subject to the broadcaster meeting the specific public policy obligation of simulcasting its current analogue service. In other words, the benefit to the broadcaster of having access to digital spectrum for the provision of new commercial services has been balanced against the benefit to the Government of promoting its public policy objective of driving digital take-up. The Government has decided, for the time being, not to make the provision of these new services subject to competitive tender or a market-related charge, which would otherwise have taken account of the value of the spectrum. This is not a point of principle – it is a pragmatic policy approach to the current circumstances in the development of digital broadcasting. It is open to the Government to change its approach to the licensing and charging regime for such services, as digital take-up accelerates and as the public benefit of promoting such new services is consequently diminished.

- All other broadcasting licences (such as digital multiplex and local radio licences), which attract no specific public policy obligations, are open to competitive auction, a process which should adequately reflect the value of the spectrum to the broadcaster.

- In conclusion, it is important that any assessment which may be made of the value of spectrum when allocating it between broadcasters, and any charge which may be levied specifically for it:
 - genuinely reflects the value of the spectrum – if any – *to the broadcaster*, ie. the financial benefit which the broadcaster itself can derive from its use, rather than the opportunity cost to the Government of creating a public asset out of the spectrum, or the potential value of the spectrum to some other body;
 - properly reflects the existing policy framework for broadcasting and take account of the mechanisms which are already in place to ensure that proper public value is obtained from those services.
- On this basis, the BBC strongly believes that it would be both inequitable and inefficient to levy a charge on the Corporation for the spectrum which the Government entrusts to it for the delivery of public services in line with the Government's own public policy objectives.
- There may however be some limited opportunities for public service users of spectrum to share capacity on "public sector" spectrum with commercial operators (as opposed to giving up the spectrum altogether). For example, the consultation paper raises the possibility of business operators having access to underused capacity in the data stream on public service digital multiplexes (paragraph 77). The BBC believes that such arrangements should only be permitted where they do not compromise the public service. With that proviso, however, the BBC believes the Parks analogy could once more apply – that sufficient flexibility should be allowed in the regulatory framework to encourage such sharing arrangements, in the interests of the efficient use of spectrum, and to allow the public service broadcaster to reinvest the proceeds of any such arrangements in its public services.

7. Efficient use of spectrum by individual broadcasters

- The BBC endorses the Review's statement (paragraph 7) that "*charging [for spectrum] is not an end in itself*" and should only be applied where necessary to encourage spectrum efficiency, and not simply to raise revenues for the Exchequer.
- The BBC believes that the full import of this essential overriding principle needs to be rigorously explored and applied. The BBC would suggest that the principle implies two further guiding considerations:
 - That no body should at any time face any charge for the use of spectrum which it is not possible, either by greater efficiency or by a change of behaviour, to avoid – because to the extent to which the charge cannot be avoided, it becomes a punitive tax – arguably "an end in itself" – not an incentive for efficiency.

- That the application of any spectrum pricing regime should be proportionate to the flexibility spectrum users have to respond to its economic levers – thus where users have only very marginal flexibility to make efficiency improvements, the implementation of a full spectrum pricing regime may be a disproportionate, and thus inefficient, approach to the policy aim of ensuring spectrum efficiency.
- Applying these principles for most users of spectrum, it is recognised that spectrum pricing can be an effective economic tool for encouraging spectrum efficiency. Facing charges for using spectrum, users in general may be able to:
 - Decide to use less overall, by ceasing particular activities which are unprofitable taking into account the cost of the spectrum involved
 - Make savings at the margin, by using less for particular activities
 - Move generally to a more efficient system – eg. digital instead of analogue transmission
 - Abandon terrestrial spectrum use altogether, and deliver services in different ways.
 - Trade off extra spectrum costs at the margin against extra revenues which might flow from using extra spectrum to reach new customers.
- However, under the current regulatory framework for broadcasting, for broadcasters, uniquely, there is not this range of possible responses to the economic levers of a spectrum pricing regime; and public sector broadcasters have the least flexibility:
 - All terrestrial broadcasters' use of spectrum is central to their purpose, not incidental or a question of choice. Although commercial broadcasters are free to cease broadcasting as an activity, if spectrum charging were to make it unprofitable, this would frustrate the Government's own policy objective of seeing a range of terrestrial broadcasting services delivered – both those which are specifically mandated in legislation (eg. ITV) and those which generally deliver the policy objective of choice and diversity. In the case of the BBC, C4 and S4C, these organisations exist to broadcast, and cannot choose not to.
 - Public service broadcasters are subject to public policy obligations imposed by Government, which oblige them to provide certain public services by terrestrial transmission, as well as by the alternative satellite and cable delivery systems. They have no choice but to do so, and to use spectrum in the process. The Government has recently reiterated its commitment to an all-platforms policy in relation to all the public service broadcasters, in its White Paper, *A New Future for Communications*.

- Specifically, and contrary to the suggestion in paragraph 80 of the consultation paper, none of the current terrestrial broadcasters have the freedom to choose at what rate to switch from analogue to digital terrestrial transmission. The Government has made clear that it will not permit the switching off of existing free to air analogue terrestrial services until those services can be received in digital form by virtually every household.
- And the BBC, uniquely, has no capacity to turn its spectrum to account – it cannot raise advertising revenues, so cannot trade off the cost of additional spectrum against a potential increase in revenues.
- Given the principle that charging for spectrum is not an end in itself, the BBC would argue that charging individual broadcasters across the board for their use of spectrum, outside of the existing policy framework, would not deliver the benefits which the Government is seeking since it would:
 - be inefficient, in that it would either charge broadcasters twice, or would charge broadcasters which can gain no financial benefit from the use of the spectrum.
 - create incentives which conflict with those established by broadcasting policy, for example incentives to restrict the number of services or their coverage.
 - divert resources away from the delivery of the very services which the Government wishes to see delivered.
 - become, in effect, a punitive tax, since broadcasters in practice have little opportunity to respond to the economic levers of spectrum pricing in ways available to other users.
- The Review implicitly accepts these problems with a spectrum pricing regime applied to the BBC. It suggests that the problems inherent in imposing charges for spectrum on the BBC could be addressed by reimbursing the Corporation from the Exchequer (a PES transfer), balancing the charge for spectrum, with the effect of creating an incentive for efficiency *at the margin*.
- The BBC is not convinced that this approach is appropriate, since it would raise a number of potential new problems of its own, including:
 - The disincentives it would create at the margin for the BBC to aim to increase the coverage or technical quality of its services, where this required additional spectrum – in other words, it would act in contradiction to the BBC's statutory obligations.

- whether the arm of Government responsible for the transfer would see its level in the longer term as an opportunity for demanding an across-the-board “efficiency” saving (by reducing the amount of the transfer by an arbitrary amount) which has no basis in a realistic assessment of the BBC’s ability to reduce spectrum use;
 - the position which the State Aids authorities might take in relation to such transfers.
- The BBC’s conclusion, therefore, is that it would be wrong to apply a charge to the Corporation’s use of spectrum on behalf of the nation, whether or not the Corporation was initially compensated for the additional costs.
 - The BBC does, however, as stated in Section 3, share the Government’s goal of ensuring spectrum efficiency, and would wish to work closely with the Government and its advisers to find effective ways of continuing to ensure that:
 - processes are in place to ensure that the current spectrum is used efficiently and to identify specific opportunities for greater efficiency;
 - where such specific opportunities can be identified, there is a proper set of incentives and an appropriate policy framework to ensure that they can be taken;
 - in particular, where there are opportunities for public service broadcasters to share their “public sector” spectrum with commercial operators without compromising their public services (such as allowing business providers to use spare data capacity within frequencies allocated to broadcasters, as suggested in paragraph 77 of the consultation paper), the regulatory and financial frameworks are flexible enough to allow those opportunities to be taken, and for the broadcaster to be able to reinvest revenues from such arrangements in their public services;
 - The BBC would welcome the opportunity to discuss with the Review and with the Government what further measures might be required to achieve these objectives.