

# AN INTRODUCTION FOR LOCAL PLANNING AUTHORITIES

Our mission is to:

"Boost the drive for improved connectivity in the UK by building and maintaining consolidated and adaptable infrastructure for use by all the Telecommunications Network Providers."

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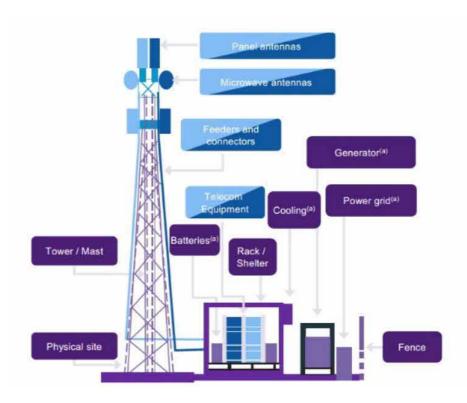


## 1 INTRODUCTION

### 1.1 Icon Tower Infrastructure Ltd

- 1.1.1 Icon Tower Infrastructure Ltd (Icon Tower) is a UK company owned by Radius Global Infrastructure, Inc (Radius). Radius is an international company that owns and leases sites for electronic communications purposes.
- 1.1.2 Radius operates in 21 countries across North America, Latin America and Europe, including the UK. Radius owns or manages sites, including the passive infrastructure, i.e. the masts, towers, buildings and security fencing to which broadcasters, Mobile Network Operators (MNOs) and other users attach and operate their active infrastructure, i.e. the antennas and radio equipment.
- 1.1.3 In the UK, Icon Tower is an Electronic Communications Code Operator (Code Operators) and reflecting its operations, it is an "Infrastructure System" provider. An infrastructure system is essentially a network of sites where passive infrastructure is made available for sharing by other operators. In the UK, Icon Tower has an established portfolio of sites hosting MNOs. In addition to this, Icon has access to a further 1,600 locations held by the wider Radius group and which also host a variety of operators.
- 1.1.4 The diagram below illustrates the distinction between passive and active infrastructure. This diagram is replicated from the Final Report of the Competition and Markets Authority, dated 3 March 2022, into the "Anticipated acquisition by Cellnex UK Limited of the passive infrastructure assets of CK Hutchison Networks Europe Investments S.À R.L." (the CMA report).





- 1.1.5 Icon Tower was only granted the benefit of the Electronic Communications Code by OFCOM, the industry regulator, in January 2022 (when it was named Radius BTS Ltd). Similar to statutory undertakers, Code Operators benefit from a range of statutory rights and powers (Code Powers), including the specific Permitted Development Rights granted to help facilitate the future expansion of networks.
- 1.1.6 The decision by OFCOM to grant Code Powers as an Infrastructure System to Icon Tower merits consideration, because this category of Code Operator was introduced in a major revision of the Electronic Communications Code at the end of 2017. This change was made to reflect the evolution in the way in which electronic communications networks are deployed, maintained and upgraded, with much greater reliance on third party Wholesale Infrastructure Providers (WIPs) to supply sites within their Infrastructure Systems, in place of self-build. OFCOM made its decision because it judged Icon Tower, would bring about the following two key public benefits. As explained in the next section, these public benefits largely underpin the town planning objectives, common across the UK.

## 1.2 Competition in Mast Sites in the Public Interest

1.2.1 First, OFCOM considered that granting Code Powers to Icon Tower would encourage investment and innovation by facilitating the provision of its Infrastructure System. OFCOM noted that the provision of such an Infrastructure System would promote access to very high-capacity networks and encourage the availability of a wide range



of communications services, including high speed data transfer services. OFCOM judged this would also help support the future development, growth and availability of modern communications services in the public interest.

- 1.2.2 OFCOM noted also that the intended expansion of the Icon Tower sites would support the deployment of 5th generation (5G) mobile networks and that the Government's Future Telecom Infrastructure Review recognised the competitive benefits and role of new infrastructure and service providers in facilitating the deployment of those networks.
- 1.2.3 In view of these major advantages, OFCOM considered that Icon Tower's Infrastructure System could enhance competition in the provision of such infrastructure as a WIP in competition with other WIPs, with the potential to benefit the public.

## 1.3 Encourage Site Sharing in the Public Interest

1.3.1 The second public benefit recognised by OFCOM was that the expansion of Icon Tower's infrastructure system would result in additional mast sites designed and provided for the specific purpose of sharing by other operators. OFCOM was clear in stating that infrastructure sharing will help to minimise the unnecessary proliferation of electronic communications apparatus, bringing environmental benefits aligned with long standing Government objectives in the public interest.



## 2 TOWN PLANNING OBJECTIVES

### 2.1 General

- 2.1.1 National town planning policy in relation to electronic communications serves to implement the wider UK policy objectives. Put simply these are to encourage the provision of high speed fixed and wireless services across the UK, so that the public have a competitive choice of high-quality services, in terms of both coverage and capacity.
- 2.1.2 As with all forms of infrastructure, the development involved can cause some impacts and that is generally the potential visual impact associated with vertical infrastructure, i.e. the radio masts. A longstanding means of minimising such potential impact has been to encourage the sharing of sites and masts by different operators.
- 2.1.3 As explained below, the proposed expansion of the Icon Tower Infrastructure System by different means, will directly support these objectives and national planning policy aims.

#### 2.2 Consolidation

- 2.2.1 Icon Tower and other associated group companies own many sites where two or more operators originally developed their own individual radio masts. As these sites have expanded over time, often with different mast designs and headframes, the overall resultant development has been piecemeal and unsightly, so undermining the objective of minimising potential impact. This is often exacerbated by the fact that the potential for visual impact is generally greater from relatively near views of a site over distance, even with higher masts, the visual prominence of a mast tends to reduce through topography and dilution with other manmade and natural features.
- 2.2.2 As opportunities arise, Icon Tower plans to consolidate such sites through comprehensive redevelopment with shareable infrastructure, capable of modular extension in a planned and more ordered fashion. Even with a higher mast, this should bring about an immediate improvement to visual amenities as well as providing shared infrastructure to support a number of operators in deploying next generation networks. As such, such redevelopment will support national town planning policy and the underlying government objectives to support and facilitate modern communications.

### 2.3 New Shareable Infrastructure Sites

2.3.1. As mobile networks evolve to the next generation, the first step in any deployment is to upgrade existing sites within an operators' network. There will however, always be the need for new sites, for the following main reasons:



Notice to Quit may be served by landlords on lease expiry or at break clauses, typically to allow for the redevelopment of a site

An existing installation may be unsuitable for upgrading to the next generation, e.g. because it was developed for single use and/or is structurally unsuitable, because it is towards the end of its economic life, or the planning circumstances have changed or make the site unsuitable for a larger structure

A new installation may be required to cover new development areas, such as a town extension or new business park, or a new road

A new installation may be required to supply additional coverage and/or capacity, as well as providing greater network resilience

2.3.2. This last point, i.e. the densification of network sites will be of increasing importance for 5G, 6G and beyond, for a combination of factors as summarised below:

**Frequency Allocation** - With each successive mobile generation the UK Government has allocated through OFCOM the frequencies that can be used within specified power levels. With 1G, the frequencies allocated were effective over a wide area and individual cells covered by an installation had a radius of around 50 kilometres. With each successive mobile generation this has decreased and 5G cells in rural areas are likely to have a range of no more than a few kilometres and in urban areas a few hundred metres.

**Capacity** – whereas voice and texts use little data or bandwidth, the massive uptake in smart phones and other connected devices has seen an exponential growth that continues in data usage. New installations interspersed amongst existing ones are therefore increasingly required to provide additional network capacity.

**Devices** – the network installations must be able to communicate effectively with devices, which are typically handheld with small batteries and this places a significant constraint on network operations. Devices can now only communicate over a relatively short distance compared with previous generations and the more distant an installation coupled with data usage, the greater the drain on battery life. A dense network with more installations and smaller cells helps overcome this problem for customers.

**Applications** – some existing and certainly future applications will require ubiquitous coverage and capacity. Lifesaving health applications that monitor a patient's condition for the provision of medication or the operation of a medical device will need to operate continuously if they are to be relied upon. Future uses such as Connected Autonomous Vehicles will also require continuous connection with a wireless network in order to operate safely on a universal basis.

**Resilience** – for all of the above reasons, network resilience will be an increasingly important feature of 5G and beyond. This will lead to a greater



overlap between cells to provide additional coverage and capacity, but also resilience in the event of the failure of an individual site within the network.

- 2.3.3. In the UK, there are four MNOs, i.e. Vodafone, O2, EE and 3 and the densification of all their networks means that the opportunities for co-locating and sharing are greater than with previous mobile generations. However, the MNOs are all in direct competition with each other and so when developing new sites, will tend to build for their own specific purposes. However, the force of planning policy means that the next MNO seeking a site in the same area, will have to explore the possibility of sharing. This often leads to existing single user installations transmogrifying into an unattractive and impactful form of development.
- 2.3.4. In encouraging the new statutory concept of Infrastructure System providers and granting Code Powers to companies like Icon Tower, the government recognises the benefits of developing shareable infrastructure. As well as making more sites available to all MNOs by WIPs on a neutral host basis, with the attendant economies of scale, sites can also be planned and designed to grow in phases with each successive MNO, in an orderly fashion. For example, through using masts, with sufficient foundations, that can be readily extended; by using the same headframes to ensure better symmetry; and having sufficient compound space for additional cabins. Sharing installations supplied by an Infrastructure System provider like Icon Tower is therefore more likely to help minimise potential visual impact, whilst at the same time, facilitating the development of next generation networks.
- 2.3.5 As explained in more detail below, the government clearly anticipates that Infrastructure System providers like Icon Tower will play a significant role in the deployment of new sites. Importantly also the government recognises the public benefit with this being undertaken in competition with each other to ensure innovation and competitive pricing to benefit the public end users.

## 2.4 A Competitive Offering

- 2.4.1. Through its parent company, Icon Tower brings global expertise to the provision of shared infrastructure and the valuable role of Infrastructure Systems as neutral host providers. In the UK, this is a relatively new and emerging concept. In the United States, for example, about 90% of mobile installations are hosted by tower companies, i.e. Infrastructure System providers. In Europe and the UK, this figure is much lower at only around 20% of installations.
- 2.4.2. The government is now clearly encouraging the use of neutral host providers, as evidenced by the statutory recognition given to Infrastructure System providers and the grant of Code Powers to Icon Tower and other companies like it.



- 2.4.3. In a recent call for evidence on its future Wireless Infrastructure Strategy, the government signalled that it is likely to move towards licensing Infrastructure System providers to deploy 6G on a neutral host basis.
- 2.4.4. In encouraging this emerging sector, the government is also keen to foster competition in the provision of sites, as important to both helping rapid and widespread deployment and securing competitive pricing. The CMA Report referred to at 1.1.4 above focussed on the importance of fostering, and not reducing, competition in the nascent market of Infrastructure Systems providers in the public interest and in accordance with government policy.
- 2.4.5. National planning policies across the UK must be interpreted and applied in the wider context of the government's policies and objectives relating to digital communications and the way in which they are evolving in step with changes in this dynamic sector. These recognise that planning authorities should encourage the deployment of new networks in a fashion that is competitive and encourages shareable infrastructure to help minimise potential impact. This includes sites now being developed for shareable infrastructure by Infrastructure System providers like Icon Tower.
- 2.4.6. Whilst national policies encourage operators to share existing sites, where practicable, this is aimed at the MNOs and not Infrastructure System providers who supply to them shareable infrastructure. To an extent, the misapplication of this policy can maintain complete and partial coverage not spots where new sites are required and where it is best for them to be shareable. The Shared Rural Network project sponsored by Government is a prime example of direct intervention to achieve this very objective.
- 2.4.7. In any event, it is very obviously not feasible or practicable for one Infrastructure System provider to share with another as they are in direct competition with each other. It would not therefore be appropriate to apply policy in a manner that would defeat the new and clear objective of government to encourage Infrastructure System providers to supply more sites. To do so would hinder the main aim of government to encourage the rapid deployment of next generation networks, in an innovative way that saves cost, reduces potential environmental impact and with more competitive pricing, all judged to be significant public benefits.
- 2.4.8 Moreover, national planning policies are clear that local planning authorities should not prevent competition between different operators and that now includes operators who are Infrastructure System providers. Likewise, little weight should be attached to objections from an incumbent Infrastructure System provider, as these will be motivated by the desire to stifle the competition which the government now seeks to encourage.