



Joint Regulators Group
Shared Works, Shared Facilities
and Revenue Sharing

Strictly Confidential

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Submission on behalf of Wireless Infrastructure Group (WIG) in response to a call for inputs by
the Joint Regulators Group (JRG) regarding shared works, shared facilities
and revenue sharing

WIG is a leading provider of wholesale access infrastructure (**WAI**) to the UK wireless sector, and has operated in the market for over 15 years. WIG invests in and manages WAI, together with complex rights from water & energy utilities and other large landholders, to enable fast and efficient deployment of wireless networks. WIG's portfolio includes 2,000 active wireless infrastructure sites across the UK together with the UK's largest contracted bank of new site options available for wireless deployment. WIG's portfolio comprises a significant range of utility and infrastructure assets available for co-location and provides access to some 15,000 site options. Our infrastructure is open and shareable and has an industry leading average of 3.3 separate network customers at each location.

WIG has worked closely with the Government over the last three years on both a local and national level to actively assist and influence policy aimed at encouraging the roll out of communications projects through shared works, facilities and revenue. This has included an active participation in BDUK's rural broadband initiative, DCMS's Mobile Infrastructure Project and the Scottish Government's Digital Scotland initiative. Furthermore, WIG is also working with the Law Commission as a key stakeholder in their Consultation regarding the Electronic Communications Code.

Against this background, we are keen to share our experience of growing our shared wireless infrastructure business by partnering with entities in other industries. We agree that the UK's national infrastructure is a system of increasingly interdependent networks and that a silo-based approach will miss the opportunities which flow from increasing systemic linkages. We note the JRG's call for input from the communications industry into how cost-savings and other benefits may be achieved from coordination across sectors and consider each in turn and would welcome the opportunity to provide additional input.

Where have regulatory frameworks played a role in facilitating or hindering shared works, shared facilities and/or revenue sharing in the past?

Within the communications sector itself WIG does not believe the current regulatory frameworks provide sufficient appreciation or acknowledgement of the role of wholesale infrastructure. A recent article by Analysis Mason ("*Infrastructure Funds Can Play A Crucial Role In The Development Of NGA Networks*", 9 Nov 2012) indicated the significant role that infrastructure funds have to play in funding broadband infrastructure and that wholesale providers were the most likely participation route for such funds. Within the government's current programme of promoting broadband infrastructure deployment, steps such as Communication Code review need to be cognisant of business models in operation across the sector beyond that of network operator.

WIG operates a co-location communications infrastructure business model that is commonplace in the communications industry both in the UK and in every other developed market of note. Co-location businesses may operate networks direct to the consumer or (like WIG) adopt a WAI model providing service instead to carriers/other network operators. WIG has built part of its business by successfully co-locating WAI on water and electricity utility assets and has developed sector leading processes for facilitating shared facilities on these assets. In doing so WIG has addressed the key issues many of which cannot be simply regulated for.

Practical considerations

Deploying and maintaining co-located WAI in a manner which does not interfere or disrupt the primary utility infrastructure can lead to a wide variety of operational and contractual issues. Furthermore, given the long term nature of the deployments, establishing agreements that can deal with future developments is complex. Key issues include:

- Level of certainty and rights required by WAI / network provider before the site is secure enough to deploy capital/ network;
- Overcoming immediate operational issues and approval from the technical teams within the primary infrastructure organisation (there are multiple bona fide operational reasons to reject deployment including the requirement for high quality wireless sites to be reserved for the utility's own telemetry and PMR networks, security concerns, health & safety issues (high voltage or clean water sites etc));
- Ongoing access requirements of the WAI owner / network provider to manage and maintain their network (our average installation receives 30 operational visits per annum. Every access needs to be controlled with detailed procedures specific to each site to protect the core infrastructure);
- Satisfying initial and ongoing health and safety requirements;
- Dealing with future developments required by the primary infrastructure owner e.g. extending a reservoir compound, refurbishing a pylon or expanding a substation; and
- Perceived risks created by the Code Powers enjoyed by telecoms operators which can in theory over-ride any contractual terms agreed between parties.

In managing these various issues WIG has worked with utilities to provide guarantees over performance and operations of the co-located infrastructure together with providing incentives to work with WIG and promote deployment. WIG activates and invests in sites across the utility and then shares these sites multiple times over with network providers delivering a vital interface in the process. A good example would be WIG's relationship with Anglian Water which now hosts over 500 separate network installations across its estate – all of them managed by WIG and many of the sites having ALL of the MNOs present together with other wireless networks.

Financial incentives for the utility are key and serve to encourage trade-offs such as releasing prime co-location sites that could have been used for telemetry or reducing certain flexibilities over site operations. WIG's contracts with utilities are highly complex and involve streamlining the multiple legitimate approvals required for deployment. The overall financial rewards for the utility are fairly limited when compared to the importance of the core utility, however at current income levels there is a good level of deployment. Increasing income would increase deployment and reducing income for the utilities from current levels would see a reduction in activity as legitimate process decisions are viewed differently.

Are there any examples of cross sectoral co-ordination from which we might helpfully draw lessons, whether positive or negative?

Utility assets from the power and water sector have already been heavily developed from a telecommunication sharing perspective by WIG and other companies such as Arqiva and Shere Group. This has involved the provision of land and infrastructure to co-locate equipment used by the mobile networks, backhaul links for fixed line operators, emergency services, broadcasters and wireless broadband providers.

WIG has long term arrangements with Anglian Water, Scottish Water (i.e. government), Southern Water, and Scottish & Southern Energy. In many cases these agreements provide WIG with the rights to develop above ground level WAI for telecommunications purposes. Water portfolios include a range of land and infrastructure solutions that could be used for co-location. For example,

Scottish Water owns 7,000 separate infrastructure points and 80,000 acres of land. Larger sites include sewage and water treatment works, pumping stations, water towers, reservoir compounds. Given the nature of the utility, every community has some form of water infrastructure near to it. Through the rights WIG has acquired on Scottish Water, we frequently deploy network equipment on their infrastructure. Power portfolios tend to be more restrictive but sub stations and pylons also offer opportunities to co-locate infrastructure.

WIG and other WAI providers have successfully opened up large utility portfolios through investment and a high level of day to day management.



Water treatment works on Outer Skerries island (east of Shetland) providing secured network site for CWW pathfinder.



Deal Water Tower, near Canterbury (24 metres in height) currently accommodating all MNOs



Newton Bar Water Tower in Lincolnshire (16 metres in height) currently accommodating 1 MNO tenant



A multi network site at an SSE substation in Craigiebuckler near Aberdeen.

Are there issues we should look at within the regulatory frameworks for which we are responsible that might apply to such coordination going forward?

WIG would recommend:

- Acknowledging the role of entities like WIG in delivering a highly effective market solution and ensuring the effectiveness of companies like WIG is enhanced;
- Acknowledging the role of wholesale infrastructure providers more fully within policy frameworks. Much of government policy in the communications sector appears directed at the networks themselves rather than acknowledging the significant role wholesale providers of infrastructure can make in a area which involves a high level of disaggregation of networks ;
- Specifically with regards to the co-location of wireless infrastructure on water and power infrastructure, we recommend regulatory changes permitting the income from site sharing or sale of rights to be excluded from water and power regulated income sources; and
- The creation of a national database of infrastructure co-location sites – WIG would be willing to create such a database.

We are keen to meet with the JRG in order to discuss both our roll within the WAI industry and the relevant touch points we have with other sectors in more depth.

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