

# Joint Regulators Group (JRG) subgroup report on cross sectoral infrastructure sharing

This paper sets out the recommendations of the JRG subgroup on infrastructure sharing in light of its consideration of regulatory barriers to cross sectoral infrastructure investment.

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## 1. The JRG subgroup's work

### *Introduction*

1.1. This revised and final report incorporates the helpful comments from BIS, HMT and other regulators provided on the draft report circulated on 26 June 2013. It responds to/incorporates those comments including providing greater clarity on what the sharing factor recommendation is and how it might be further developed. It also responds to the more innovative form of investor models suggested by Government (Section 4).

1.2. We intend the recommendations in this paper to be implementable reasonably quickly but also to be subject to further development in places through practical implementation. This further development will be particularly necessary in relation to the issues in Section 4. We will cover part of this work in the separate JRG subgroup work ongoing through August looking at the terms and conditions faced by one sectors network crossing or otherwise interacting with others. For example, a revenue sharing arrangement between sector networks is sometimes part of the price of gaining access to shared infrastructure.

1.3. The overall recommendations need to be implemented in a way that recognises the importance of facilitating initiatives by those new to the particular industry(ies) involved. This impacts on how clear the communications should be.

### *The remit*

1.4. HM Treasury in its National Infrastructure Plan November 2011<sup>1</sup> asked the GB economic regulators to consider any regulatory barriers that might hinder beneficial shared infrastructure works, shared facilities or revenue sharing across the different sectors that they regulate. It also asked the economic regulators to consider ways of encouraging such beneficial infrastructure sharing where consistent with their respective statutory duties.

1.5. The regulatory bodies launched a subgroup from their Joint Regulators Group (JRG) to consider this in June 2012. Ofcom, Ofwat, ORR and Ofgem have contributed to the subgroup over its life. This paper outlining the subgroups final recommendations also

<sup>1</sup> HM Treasury: National Infrastructure Plan, November 2011.  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/188337/nip\\_2011.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/188337/nip_2011.pdf)

benefits from liaison with HMT and BIS officials, with JRG more widely and from external stakeholder views.<sup>2</sup>

1.6. When launching the subgroup, JRG were clear that it would consider the appropriate 'output' of the work. It is for it to consider the recommendations made and consider next steps. The subgroup has however made suggestions on an implementation timetable for the recommendations made.

#### *The study*

1.7. The subgroup has considered a range of different types of interaction where barriers might occur. Where such barriers do occur, these could preclude otherwise beneficial infrastructure investment. We started with the recognition that we would identify barriers partly or wholly outside the regulatory remit. We looked to separate out some of the more obvious of these. We are aware for example, that in some of these other issues eg planning issues, Government is considering further within its work.

1.8. Other issues are more complex. Health and Safety needs to be considered when considering joint infrastructure investment in these important sectors. While ORR (and CAA on the wider JRG) has these responsibilities the sub group has limited its focus to economic regulation functions for all the regulators on the sub group. One of our recommendations is to widen the discussions to include the HSE as this would allow early identification of issues in this area for prospective investors and developers. This is not to give HSE a predominant role. However, in some cases, economic regulation changes considered in this paper might be redundant because health and safety rules prevent the type of sharing of infrastructure envisaged or place limits on it. If HSE is involved in discussions early enough it might be possible to allow the wider benefits of infrastructure sharing to be considered against the current health and safety rules.

1.9. The scope has been limited to the above regulated sectors. However, examples suggest that many of the barriers exist between sectors whatever their ownership/regulatory structure. In particular, synergies seem as likely in the interaction between a number of the regulated sectors with road developments. Where a long history of operating within the boundaries of one network has been prevalent, joint thinking faces similar obstacles in either regulated or other cases.

1.10. In considering the way that regulatory frameworks interrelate we have had to appreciate that many of the regulators have recently or are reviewing elements of their frameworks and making changes that might change the picture compared to that heard from historical cases. Section 3 briefly highlights this context, which includes recent reviews by some of the regulators involved in the way they assess the network companies operating in their sectors. This matters both for positive and negative reasons. It is important in recognising that historical barriers might have been lessened by recent regulatory reforms. It is also important to understand such things so that they are not removed at some future point without recognition that they are playing a positive role in facilitating cross sectoral infrastructure development.

1.11. In February 2013, when the sub-group discussed its initial thinking with Government, IUK emphasised the importance of giving consideration to the challenges/potential regulatory barriers facing a more innovative investor who might want to invest in an infrastructure corridor. While to date there are limited examples we know that major infrastructure projects might be delivered at least in part from such investors. This raised the specific point also debated by others eg Helm (2009<sup>3</sup>) that different timings,

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<sup>2</sup> Non-confidential responses to Ofcom and Ofgem's consultations are listed in Annex 1.

<sup>3</sup> Policy Exchange (Helm et al) Delivering a 21st century infrastructure for Britain, 2009.

(<http://www.policyexchange.org.uk/images/publications/delivering%20a%2021st%20century%20infrastructure%20for%20britain%20-%20sep%2009.pdf>)

labels and methodological choices of different regulators would dissuade such investors. We consider possible ways forward on this in section 4.

1.12. In March 2013, Ministers wrote to the regulators in relation to a related but distinct issue about the situation facing one network sector where it wished to cross or interact in some way with another network sector. The question here being how the monopoly network sector would deal with the other sector and whether there were ways to prevent use of its monopoly position to extract excessive rent and/or otherwise delay or deter investment. This work will continue to be considered by Government and the regulators. Initial work in this area suggests that the regulatory regime and specifically the network company licences are focused on obtaining the best performance possible for consumers in the relevant sector. While some restrictions are placed on companies in different sectors in terms of other income, this is an area with much more limited focus currently (including in information gathered/monitoring). We think there may be ways to improve on this situation and want to understand the perspective of interested parties ahead of reporting on this area. We are carrying this work out through August/early September 2013.

#### *Stakeholder views*

1.13. The central theme of the responses was that the barriers that existed in particular cases were overcome. Northern Powergrids for instance said that it has not 'experienced situations where this has been a significant issue in practice'. UK Power Networks understanding from two examples cited is that any obstacles were not insurmountable. SSE makes the point that it does 'not believe existing frameworks necessarily discourage sharing or coordination' but note that, 'we believe the legal and regulatory framework could be enhanced to include the necessary mechanisms and incentives to facilitate a joint approach and to deliver wider benefits'. However, the responses also highlighted the more limited transparency as to how things work across sectors compared to within sectors (particularly in light of major improvements in the transparency of arrangements within the sectors).

1.14. EDF Energy point to an existing (but recently implemented) regulatory tool (the new innovation support mechanisms<sup>4</sup> implemented in energy through the RIIO framework) as a possible solution.

1.15. The responses show that experience to date varies and priorities going forward mean that even where barriers are not present today regulators need to be mindful not to create them through inadvertent changes in the future. For example, Severn Trent point to the interrelationship between the energy and water arrangements around incentives on sludge gas. The same company also points to a concern echoed in a number of the telecoms responses around the uncertainty of regulatory treatment of shared assets.

1.16. Many of the telecoms respondents eg Vodafone demonstrated significant experience in sharing between telecoms providers and this working in a competitive environment. They were keen that incentives and regulatory scrutiny was proportionate to the circumstances and that the consumer benefits were well understood.

1.17. Against this background, we were also able to benefit from a wide range of experience gained by IUK from working with a range of third party contractors and investors/potential investors. This illustrated that even where barriers had been overcome in the past it would be more important that this happened faster going forward (as potential benefits were higher, given the significant new infrastructure in the different sectors and technological changes).

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<sup>4</sup> RIIO recognises the need for extra support for innovation given the challenges and context facing the energy sector. For more details see Chapter 14 of Ofgem: Handbook for implementing the RIIO model, 4 October 2010, <http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/RIIO%20handbook.pdf>.

## 2. Recommendations

2.1. The regulatory frameworks, whether in energy, water, rail or telecoms are generally designed to operate in the interests of consumers in those sectors while providing sufficient certainty and reward to those delivering for those consumers and those who invest in the companies that deliver for consumers.

2.2. Network regulation should already incentivise cooperation between network companies where this leads to a network company's costs being lower than would have otherwise been the case. These incentives (with various improvements over the years) have been successful over the last 20 years. They work through enabling the regulated network company to keep some of the reward so aligning their incentives more with the consumers.

2.3. These recommendations recognise that in some cases there may be no scope for cost saving to the network but the benefit from shared use may outweigh any costs facing the particular network company from the shared use (eg where benefits are asymmetric). Alternatively, there may be cases where the network company is indifferent to the sharing because it perceives that any impact on its costs is dwarfed by the risks/costs that might be included as result of infrastructure sharing. Despite any reward, the perception of risk eg possible costs resulting from health and safety action, outweigh these rewards.

### *Principles for shared use of infrastructure across regulated sectors*

2.4. In general, the examples raised involve at least one of the network companies who are subject to price control. Where this is the case there is uncertainty about how the regulator will treat the shared asset (compared with the same asset without shared use), in particular how much of its costs should be remunerated through the allowed revenue. Also how an enhancement to the asset should be treated in the companies regulated asset base (or value)?

2.5. As discussed with the JRG at its February meeting there is high level regulatory guidance that if established up front, could facilitate joint use of infrastructure by removing or significantly lessening this uncertainty.

2.6. We recommend that the regulators adopt the following guidance for considering cases where one regulated sector infrastructure network needs to share infrastructure with another.

- clear sharing factors for treatment of costs (avoiding unnecessarily complicated negotiations/calculations)
- identification of a lead regulator for determining the arrangements but with consultation with other affected regulators
- be proactive with sector companies in making transparent information about changes in core use eg that suggest obsolescence.

2.7. It is possible to go further and consider arrangements where revenues are shared across the sectors either by agreement between organisations from different sectors or through related companies owning both sector network assets. Some of the initial steps that could be considered in such cases are considered here in the more radical sharing factor options but are also considered in the further steps set out in Section 4. These will need to be considered by the regulators, at least initially, on a case by case basis.

## Sharing Factors

2.8. Where regulators set revenues in a price control/periodic review, the regulatory treatment of a shared network is not immediately clear. This includes treatment of the ongoing costs of the network (maintenance/renewal) and any development/enhancement costs. Does the sharing impact on this or not? This uncertainty alone provides a disincentive to a price controlled company from engaging in sharing of assets/revenues.

2.9. In addition to the above, a great deal of time and resource could be spent trying to develop a precise calculation of any appropriate sharing factor for the treatment of costs. This means that even where the company feels confident that its regulator will consider the impact of the sharing on costs properly, there is then resource cost and uncertainty around the calculation of any sharing factor.

2.10. Consistent with JRG views at its February meeting, we recommend that in such instances i.) regulators take account of the sharing and ii.) a sharing factor is then applied to allowed revenues reflecting the impact of the sharing on cost. We also recommend that this is done through a small number of options rather than involving precise calculation of the impact of the infrastructure sharing on cost. There are a number of approaches possible and the subgroup recommends that we establish principles for the assessment of costs under such a shared infrastructure case.

2.11. There is an advantage in being as clear as possible up front ie ahead of any particular case, about what this sharing factor is or how we would calculate it. However, the shared use could be very different in different cases and there needs to be some options to cope with these differences in the way revenues are allowed through the price control process. Otherwise, setting a sharing factor arbitrarily high might incentivise sharing of infrastructure where there is no/limited benefit and be unfair to a dominant party. Therefore some choice of sharing factor is needed.

2.12. The subgroup recommends that at the outset regulators set an expectation that the sharing factor will fall into one of the levels in Table 1 below. This would need to be informed by the particular context of the case but at least has the merit of removing long and detailed calculations considering values in between this that might be spurious and might also prevent effective infrastructure sharing going forward because of the time it would take.

**Table 1: Proposed sharing factors that might be applied for dual use of infrastructure<sup>5</sup>**

Network company A (proportion of previous unshared costs)	Network Company B (proportion of unshared costs)	Typical circumstances
50	50	<p>Where the costs of the new shared asset (compared to costs of similar but unshared assets) are borne roughly 50:50 by each of the sector network companies. This might be the case where the technology involved in the sharing effectively removes what would otherwise be around half the needed area of inspection, maintenance and replacement by Company A (note the total costs might be the same or increase but the factor reflects the impacts on costs facing Company A in the new situation).</p> <p>Company B in this case might not be subject to a price control and therefore the factor is indicative. However, theoretically it could be two price controlled networks each being treated based on the change of costs from before or against average assets of this type.</p>
25	75	<p>Conditions where a significant proportion of the previous costs (or costs on similar assets) continue to be met by network company B but there is some saving due to the sharing through</p>

<sup>5</sup> These are indicative sharing factors deliberately chosen to reflect different broad combinations in a way that also avoids complex calculations. In the early cases, regulators will need to consider practical evidence and the approach may be improved.

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Network company A (proportion of previous unshared costs)	Network Company B (proportion of unshared costs)	Typical circumstances
		reduced inspection/maintenance and replacement costs.
75	25	Conditions where a significant proportion of the previous costs (or costs on similar assets) continue to be met by network company A but there is some saving due to the sharing
10	90	Where the sharing makes no difference to the respective ongoing costs/value of each sectors asset but where some project development costs are shared (eg shared management of planning process).
90	10	Where the sharing makes no difference to the respective ongoing costs/value of each sectors asset but where some project development costs are shared (eg shared management of planning process).

2.13. This allows the case of equal sharing and sharing involving a markedly larger or smaller set of network assets, along with the case where limited difference is made.

2.14. This principle should also be extended to the treatment of new infrastructure. This means that as well as considering the impact of 'sharing' to an existing infrastructure and the ongoing costs of the particular sector's network as a result, it should also be applied when considering proposed new investments. Here the nature of the impact of sharing could again be considered against the table above. Due to the relatively limited number of scenarios this would remove a significant regulatory burden from the calculation of the efficient new investment/ enhancement cost in one sector where the new infrastructure includes another sector.

2.15. In making this recommendation we recognise that this does not resolve all issues. Two further extensions were discussed by the group:

- how efficiencies/overspend on shared assets should be considered and
- whether sharing of assets should be positively incentivised via the sharing factor approach rather than the approach above which broadly seeks to reflect the underlying cost conditions.

2.16. On the first point, our recommendation assumes that shared asset costs are treated in the same way as other network costs such that there is the same degree of incentive on the company to try and be more efficient in its operation and maintenance of the shared asset as any other.

2.17. On the second point, the subgroup members had different views on whether this recommendation should go further. Such extension might include a higher incentive to reward shared use. Such a higher incentive might be appropriate if some or all of the following conditions hold:

- if there are higher risks associated with infrastructure sharing (eg contractual transactions) but if the overall benefits are retained by consumers as a whole
- if there is scope for sharing of revenues between the two network companies eg if a telecoms network, though in a competitive market, is gaining an advantage from sharing the network that allows it to share some ongoing revenues that can in part be passed back to consumers of the monopoly network
- to reward the removal of cultural/historical barriers to working with other network companies
- if there is a fee from the network company in the competitive market (as it is unlikely that such a fee would be countenanced in the price control for a monopoly company) paid to the monopoly network for access to share its infrastructure and
- if there is perception of possible risk of degradation of assets through sharing.

2.18. Sector regulators will want to make sure that consumers in their sectors are protected from unjustified and disproportionate costs given the relative benefits available.

2.19. At present, given current levels of information on the benefits and costs associated with infrastructure sharing, we do not have sufficient confidence to demonstrate that a higher incentive for shared use would necessarily lead to overall benefits. It might also be inconsistent with the point made in paragraph 2.18. At present, the JRG subgroup does not recommend this as it would counter some of the reforms in energy and water where like expenditures across all expenditure categories are treated in the same way so as to provide a level playing field for decision making. The circumstances listed in 2.17 will need to be considered as all involved build up more information and we recommend that such a higher incentive is not ruled out in principle at this stage. A higher incentive and the treatment of money flows between sectors would be at the centre of considerations of the appropriate regulatory treatment of any revenue sharing.

2.20. To illustrate the basic sharing factor recommendation further, its worth considering a real case raised in our consultation and a couple of theoretical worked examples.

2.21. The basic sharing factor recommendation, if employed, might have been helpful in the case that Severn Trent raises about laying broadband in a public sewer. As then, Ofwat would need to make a judgement on the appropriate treatment of any access fee paid. However, it would have clear guidance (and the company would have transparency) on how



much of its ongoing costs would continue to be remunerated through the regulatory control (and that such works would not go into spurious levels of accuracy).

2.22. Some theoretical worked examples illustrate the recommendation in differing circumstances (nb these don't consider other issues eg health and safety). The gas transmission network is subject to a revenue control. A section of the pipeline is being re-laid during the next control period as it has reached the end of its asset life. This has been part of the company's business plan submitted for that subsequent price control. A telecoms provider has approached the company with a proposal to take the opportunity of relaying the pipe to run some broadband cabling through the same trench. This has no impact on the gas transmission companies ongoing pipeline costs (note this is the gas companies own ongoing costs rather than the total ongoing costs associated with the trench ie sum of gas transmission and telecoms costs). There is no fee as such but the one off costs (planning etc) are shared between the companies. Overall wider benefits are produced for consumers overall through this being the quickest process for delivering the new broadband eg compared to alternative routes, separate planning etc.

2.23. At the outset there might be concern that the regulator might treat the re-laid pipeline differently. Under the above recommendation, where the gas transmission network company was able to demonstrate in its business plan that ongoing maintenance costs etc were unchanged, it would have certainty in advance that the regulator would continue to consider it largely the same. This would be subject to the assumption of some sharing of one off costs leading to the recovery of 90% of what it would have recovered in the absence of the second network sharing its assets. It would also have comfort that the regulator would not seek detailed calculations about the change to the one off costs.

2.24. Taking a different example where instead of sharing the trench there was significant physical sharing of infrastructure meaning that the ongoing maintenance, inspection and repair costs would necessarily be shared eg where around half the infrastructure was from one network sector and half another. Any of these networks subject to price/revenue control could again be comforted that there is no need for a precise calculation of the share of costs and that they would continue to be able to recover around half the costs compared to the unshared assets.

#### *Lead regulator*

2.25. We recommend that even with such an upfront commitment to the use of sharing factors and to limiting the scope for complex calculations of overly precise sharing factors, a lead regulator is identified at the outset of a case and that this regulator has a obligation to work with other affected regulators. This removes possible duplication or unnecessary delay. It also ensures that all pertinent facts are available to the lead regulator in making its assessment. In cases where only one of the network companies is price controlled (probably the majority), the lead regulator would be that companies regulator. In cases where both network companies are subject to price controls (including any equivalent assessment), then the main factor would be proportion of costs involved. However, other factors such as resources and specialists from previous cases may influence the judgement.

#### *Changes in core use*

2.26. While recognising benefits from shared use and revenue sharing models, the JRG subgroup recommends that regulators (directly and through the information they gather from the companies they regulate) provide more transparent information on how each sector's assets are changing over time and in particular, where some assets are approaching obsolescence. There is a danger that shared use of infrastructure becomes the sole reason for keeping particular infrastructure where the most efficient answer for consumers might be for the asset to be disposed or transferred with alternative answers being found by the other sector network. Without transparency there is also a risk that

major upheaval to those from other sectors, which could have otherwise been pre-planned or phased, impact as shocks.

### *Proactive resourcing*

2.27. This exercise has been useful in bringing the advantages of shared infrastructure to the attention of the regulators across a number of different sectors (and through the consultation to other stakeholders). Many respondents to the consultation highlighted this advantage in preventing future surprise. However, this will be transitory unless the regulators put in place some way to maintain alertness to this issue (though clearly not at the detriment of their other responsibilities). They also need at both senior and working levels to be capable of addressing issues (including those discussed in Section 4).

2.28. We recommend the following in this area:

- JRG reviews infrastructure sharing and other cross sectoral interaction as a standing item for one of its annual meetings
- Each regulator identifies two leads on infrastructure sharing<sup>6</sup>
  - One would be a member of the senior management team of the regulator who would have overall responsibility for cross sectoral infrastructure interaction at this level and
  - One would be the day to day proactive point of contact
    - while probably only being part of a role, this would ensure that there was someone who could be first contact from companies involved in such issues or from other regulators
    - proactive means that this is not just waiting for cases to arise but working with the other regulators and Government (partly in gathering intelligence, see below).

2.29. The establishment of a proactive point of contact also means having someone in each regulator who can promote the consideration of cross sectoral solutions. In practice we see a change to the use of regulators' websites as an important starting point. Having a clear route for those with cross sectoral interests would guide people with questions in this area to the:

- relevant point of contact
- information currently available
- best practice guidance
- initial principles eg recommendations around sharing factors.

2.30. The point of contact should engage actively with their opposite numbers at other regulators and we recommend that this be extended to Government eg IUK and potentially to organisations such as the Highways Agency.

### *Gathering sufficient intelligence around infrastructure sharing opportunities of different kinds*

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<sup>6</sup> Coupled with our later recommendation we consider this should be widened to network sectors and certainly include relevant highway authorities.

2.31. Absence of ordered and available information about the degree of joint investment taking place and about actual vs planned delivery timetables has hampered this study and hampers the extent to which such barriers can be removed. It limits understanding of the scale of the costs associated with such barriers and therefore an understanding of how much focus we and others should make at removing them.

2.32. One of the responses suggested a national database detailing joint infrastructure investments. We think this is a helpful suggestion and recommend that JRG and the regulators themselves support such efforts. We do not consider that responsibility for gathering and delivering this information falls within the regulators' remits. However, we do consider that regulators should consider the information obtained from companies and whether this can be enhanced to support understanding of cross sectoral opportunities.

2.33. We therefore recommend that regulators play a full role in supporting gathering further information on infrastructure sharing and review the extent to which the current reporting and monitoring arrangements could contribute to this.

#### *Effective regulatory treatment*

2.34. From an outsiders standpoint the differences in our regulatory frameworks might themselves act as a deterrent. Such differences include:

- timing of treatment of regulatory assessment of related expenditure (eg difference control periods)
- different requirements facing the companies (different outputs)
- different scope for investment assessments during a regulatory control period
- different terminology and
- micro differences eg different consultation periods associated with specific licence changes.

2.35. The JRG subgroup recommends that all regulators remain alert to where any of these appear to be having deterrent effect. We are aware that the current arrangements have been developed over a number of years and the application of regulatory frameworks in their respective sectors have been successful. We recognise too that much work has gone on in the different regulators to make aspects of the regulation eg licences more transparent.

2.36. We recommend that Regulators should continue to develop transparent frameworks and consider the interactions with other regulatory frameworks when making changes. This is not a static but dynamic process considering ongoing reforms as well as potential barriers from the existing regulatory framework. We recommend that regulators in particular consider rationalisation of terminology where broadly or precisely the same thing. A starting point would be to consider rationalisation of the use of terms labelled differently eg regulatory asset value (RAV) and regulatory asset base (RAB), though in this case we would of course need to be careful given the importance of this concept from an investor perspective.

2.37. The JRG subgroup is convinced that measures from recent reforms mean that major differences eg the timing of price controls are less of a concern because of the flexibility by which regulators assess major infrastructure investments. However, regulators should remain open to more radical changes if these are shown to be necessary. Again this can be better informed by information becoming more available.

2.38. However, we also take account of the innovative investor models that IUK has asked us to consider (Section 4). In light of these we recommend that JRG set up a new subgroup to look at cross sectoral licence rationalisation. This would not be the existing subgroup but would instead need to be the specialists in this area (licence/code specialists with legal/policy input).

2.39. We also consider that while drawing up guidance explaining the regulatory frameworks may be costly and of little value, the more innovative investment opportunities described in section 4 make a new case for a relatively short/simple guidance to be published. This would both be beneficial to new entrants to the relevant sectors (including those considering multiple sectors) as well as being beneficial to more traditional sector investors who are new to the industry (and its associated jargon).

#### *Working effectively with partners across sectors*

2.40. The discussions have to date not been sufficiently wide to counter major barriers. Where health and safety rules might restrict joint or co-ordinated infrastructure investment we recommend that the Health and Safety Executive are brought into any discussions so that the interaction between economic regulation and safety regulation is fully understood.

2.41. We recommend that other network sectors particularly roads may involve some of the critical cross sector barriers. This recognises for instance the work to coordinate utility streetworks. Without identifying the appropriate forum the JRG and Infrastructure UK (IUK) might want to consider some kind of regular interface incorporating these extra groups.

#### Super Projects

2.42. The scale of some of the projects identified during this work. Along with the scale of the projects being considered in the related work on the terms and conditions offered by one sector network to another for its infrastructure to cross or otherwise interact with it, suggests a the need for greater coordinated planning across the utility and transport sectors. Here projects such as Crossrail, HS2, and changes such as the introduction of enterprise zones imply a step change in needs that impacts across the regulated utility/transport sector. HS2 for example might imply temporary changes to electricity infrastructure to facilitate the work, network reconfiguration as a result of the construction and major changes as a result of the operation of HS2. There is a need for strategic interaction across a range of regulated monopolies. Changes made in recent regulatory reforms are challenging regulated monopolies to show more initiative but arguably this is still largely centred on their own sectors.

2.43. There seems to be some evidence from some of these major projects that interaction with the utility sectors has come late (causing unanticipated cost increases and time delays). For example, in relation to the Crossrail project there are cases where some of the utility works were found to be more significant than planned.<sup>7</sup>

2.44. The subgroup recommends that for all 'super projects' such as Crossrail and HS2, the regulators should make sure that information from the network companies in their sector include details of how the companies are working against the context of these super projects and are considering all related opportunities (along with minimising any costs). It should be a normal expectation that such consideration would be part of a business plan in the price control process in energy, water and rail. It should also be an element of company reporting so that this information is transparent to those outside those sectors.

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<sup>7</sup> The discovery of a pre-existing fracture in the water pipes as work was getting underway on utility works associated with the Crossrail project ([http://www.crossrail.co.uk/assets/library/document/c/original/c435-xrl-z1-xbu-m123-50006\\_st\\_john\\_st\\_water\\_main\\_disruption\\_27\\_june\\_2013.pdf](http://www.crossrail.co.uk/assets/library/document/c/original/c435-xrl-z1-xbu-m123-50006_st_john_st_water_main_disruption_27_june_2013.pdf)).

2.45. While wanting utilities to play active parts in such projects, in considering the above we will also need to be mindful of the alternate risk of utilities and other networks being involved in lots of abortive work where plans are at an early stage.

*JRG*

2.46. We recommend that JRG should review progress against all the above recommendations on a regular (probably annual) basis.

*Timetable for implementing recommendations*

2.47. While a matter for JRG in the first instance and then ultimately the regulatory boards, the subgroup thought it useful to include suggested timings for implementation of these recommendations in Table 2 below.

**Table 2 Suggested timings for implementation of recommendations (for JRG discussion and review)**

Recommendation	Suggested timing for implementation
Sharing factors	<p>The change of principles/guidance should be applicable for all cases from September 2013 onwards. The more complex aspects such as treatment of fees, sharing of unregulated revenues would need to be developed over time eg through further work within the relevant regulators.</p> <p>The more advanced options in favour of infrastructure sharing should be actively considered where the growing information supports it or the context described in Section 4 is being considered in practice. It would in any event be useful for consideration over the next 6 months by regulators as part of a widening of discussion of this and other recommendations by the JRG subgroup.</p>
Lead regulator	Principle should be applicable for all cases from September 2013
Changes in core use	Identify appropriate reporting by 31 December 2013 then updated annually.
Proactive resourcing	Nominees designated by 30 September 2013 (reviewed on annual basis). These should then promote cross sectoral consideration through active engagement with peers in other regulators and Government (we recommend that IUK nominate a contact for interaction with the

	<p>regulators).</p> <p>An early part of this could be adding a relevant area to the regulators' websites where anyone with an interest in multi sector use of infrastructure can gather relevant information in a single place.</p>
Information	Suggest that regulators consider this issue when considering reporting and monitoring arrangements eg when preparing annual reporting packs where applicable.
Better regulation	<p>Suggest JRG sets up licence subgroup or other group of specialists to look for rationalisation options over the next 5 months.</p> <p>Publication of short guidance on differences between regulatory regimes to be considered by JRG – if agreed, suggest publication by December 2013</p>
Working with Partners	From September 2013
Super projects	From September 2013 (to be further informed by terms and conditions work)

### 3. Changing regulatory context

3.1. Regulators have overtime made reforms to their frameworks. Those operating price controls have tended to make improvements at each control to reflect lessons learnt. However, recently we have seen major reforms eg Ofgem's development of RIIO (its new approach to regulating energy networks) and Ofwat's future price limits work.

3.2. Both the changes in water and energy include elements that should encourage wider consideration of benefits across sectors. These changes have included enhancing the role of customers and stakeholders in determining what network companies deliver. The business plans need to pick up a wider context. In energy, network companies are provided with more initiative and are incentivised to include a wider recognition of opportunities including across sectors.

3.3. These changes should be recognised and some previous regulatory barriers should be lessened (or be in the process of being lessened) as a result.

3.4. The benefits of such changes within a sector to the wider cross sectoral context needs to be recognised and the impact assessments for any changes going forward should consider this wider cross sectoral impact.

## 4. Responding to innovative models of cross sectoral investment

4.1. A number of models of possible investment across sectors have been suggested to us by IUK. This has come from its experience of contact with various third parties including contractors and investors. This section sets out two models and considers the different levels of possible regulatory response in the context of both the earlier recommendations and other potentially more radical ways forward highlighting further work that might be done. These scale up from things that we can recommend happen now in preparation for such possible models to more advanced responses which the regulators would each need to consider further in light of this work, further developments and liaison with Infrastructure UK.

### **Model 1: single investor in infrastructure corridor eg London to Birmingham capable of carrying water, energy, rail and telecoms infrastructure to meet reinforced needs.**

4.2. Such an investor would either require licences in each of the relevant sectors or would need to contract with the licensed entities in the sectors. Either way, the differences in the regulatory frameworks for each sector including functions, type and level of scrutiny and terminology would be barriers.

4.3. The recommendation for a JRG licence specific workgroup is relevant to this along with the guidance on difference. However, further steps may also be necessary, In particular the following might be considered by the regulators:

- simplified licences for standalone network (subject to the requirements for effective, safe, secure and efficient operation within each sector)<sup>8</sup>
- more extensive rationalised licences
- allocation of further resources to regulating cross sectoral investment (over and above the recommendations above)

4.4. The subgroup is not in a position to provide definitive information on the scale of this and instead recommend that the regulators work with IUK to understand this further as cases develop.

### **Model 2: licensee in one network sector diversifies and initiates a company in another network sector. Investor wants to move revenues between the two sector entities**

4.5. While some of our recommendations would facilitate the information gathering needed, the regulators might also consider the following:

- Doing work to understand the type of ringfencing arrangements that would protect a particular sector's consumers while preserving benefits from revenue sharing arrangements
- Implement a forum to share best practice in such cases.

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<sup>8</sup> Offshore transmission owner and licence design being considered for onshore competition in electricity transmission (see [http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents/111216\\_Consultation\\_Competition.pdf](http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents/111216_Consultation_Competition.pdf) ) might provide a useful starting point.

## **Annex 1: List of respondents to Ofcom and Ofgem consultation**

### **Respondents to Ofcom consultation**

<http://stakeholders.ofcom.org.uk/consultations/jrg-call-for-inputs/?showResponses=true>

ACW

Arqiva

VM

PNSol

Mobile Operators Association

Vodafone

Wireless Infrastructure Group

### **Respondents to Ofgem consultation**

<http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=129&refer=Networks>

Severn Trent Water

Scottish and Southern Energy

Electricity North West

EDF Energy

Northern Powergrid

Yorkshire Water