

By email only: FutureNetworkRegulation@ofgem.gov.uk

31 October 2022

Dear Akshay,

Open Letter: Future Systems and Network Regulation

Thank you for your open letter dated 29 September regarding the future of energy network regulation and the next network price control review process.

This response is on behalf of UK Power Networks' three distribution licence holding companies: Eastern Power Networks plc, London Power Networks plc, and South Eastern Power Networks plc. We are, as you know, GB's largest electricity Distribution Network Operator (DNO), dedicated to delivering a safe, secure, and sustainable electricity supply to 8.4 million homes and businesses.

Firstly, we believe Ofgem's focus on continuous improvement of the regulatory regime, including consultations such as this that challenge the status quo considering changing external factors, is one of the great hallmarks of the UK regulatory system and has contributed to its status as one of the best regulatory systems in the world.

In this letter, we set out our responses to the four questions that Ofgem poses in its Open Letter.

1. Strategic Issues

Question: Do you have any views on the strategic issues we must consider in the development of the next price control review process?

We agree with Ofgem's summary of the main strategic issues in the energy system. Our analysis suggests that by 2030 in our three regions, we could be facing:

- 3.7 million Electric Vehicles (compared to 360,000 today, a 10x increase)
- 720,000 Heat Pumps (compared to 50,000 today, a 14x increase)
- 4.6GW of Energy Storage (compared to 0.4GW today, a 12x increase)

These potential volumes are indicative of a fundamental transformation of the energy system as we decarbonise power, transport, and heat to achieve the UK's net zero target.

We also believe there are two additional factors that are material and should be considered in the evolution of the price control process – the increasing role of local energy planning and the establishment of legally separate Distribution System Operators (DSOs, which would provide a credible independent view of what networks are required to deliver.



1.1. Increasing role of local energy planning

The Climate Change Committee (CCC) concluded in December 2020 that its Sixth Carbon Budget can only be achieved if government, regional agencies and local authorities work seamlessly together. More than half of the required future reduction in emissions rely on people and businesses adopting low-carbon solutions – decisions that are made at a local and individual level. Many of these decisions depend on having supporting infrastructure and systems in place, as well as information and guidance. The CCC highlights that local authorities have powers or influence over roughly a third of emissions in their local areas.¹

The thrust of the CCC's conclusions are reinforced by other stakeholders too:

- Ofgem itself highlighted the importance of local energy system planning in its Call for Input (April 2022) on the future of local energy institutions and governance².
- In June 2022, BEIS articulated a significant role for local authorities in the designation of heat network zones and in management of the zones as "Local Zoning Coordinators"³.
- In March 2022, the Government set out a core role for local authorities in planning and delivering widespread on-street charging for Electric Vehicles⁴.

UK Power Networks' response to Ofgem's Call for Input (April 2022) on local energy institutions and governance advocated the establishment of Regional System Planning (RSP) functions which should be considered in the context of improving future price control processes. The purpose of RSPs would be to assist local government in determining the optimal pathway to Net Zero for the local region. Practically, this would mean:

- Supporting local government, where required, with technical analysis to determine what decarbonisation technologies should be deployed, how many, where and by when?
- Ensuring that the pathway takes a whole systems approach to understand and incorporate dependencies on transport, housing, and other societal needs;
- Assessing the economic costs impartially and doing so across energy vectors to provide local government high quality information to base local policy decisions on; and
- Identifying the quantum of funding needed to realise the plans, recognising that this will be much broader than network investment costs alone.

These RSP functions will require technical and economic skills and could assume responsibilities currently undertaken by DNOs, such as development of local future energy scenarios in an impartial way. This would enable the Future System Operator's (FSO) national future energy scenarios to be better aligned with bottom-up local insights. The RSPs would provide independent advice to local government without any vested interests and would most likely need to be a public body.

¹ [Local Authorities and the Sixth Carbon Budget - Climate Change Committee \(theccc.org.uk\)](https://www.thecc.org.uk/local-authorities-and-the-sixth-carbon-budget)

² <https://www.ofgem.gov.uk/sites/default/files/2022-04/Call%20for%20Input%20Future%20of%20local%20energy%20institutions%20and%20governance%20.pdf>

³ [Heat Networks: Proposals for Heat Network Zoning: government response \(publishing.service.gov.uk\)](https://publishing.service.gov.uk/government/consultations/heat-networks-proposals-for-heat-network-zoning/government-response)

⁴ [Taking charge: the electric vehicle infrastructure strategy \(publishing.service.gov.uk\)](https://publishing.service.gov.uk/government/consultations/taking-charge-the-electric-vehicle-infrastructure-strategy)

Such expertise in the public sector would empower local authorities (and national government) to take cross-sectoral decisions about the optimal shape of local energy networks, including strategic decisions about network choices – for example whether to support a local heat network or a local hydrogen network.

As such, the design of future price control processes should strongly consider how local energy plans are factored into proposals for additional investment in energy networks.

We also note that government policy is to have a national framework of heat network zoning to be established by 2025. Zone choices themselves are likely to start emerging soon afterwards as local authorities will be keen to resolve uncertainty if any of their districts meet the criteria. Decisions within government on hydrogen for heat are due to be made in 2026 and local variations in approach appear already to be highly likely. These decisions will have a huge impact on business planning, especially for gas networks, but also for electricity distribution.

The next round of price controls must also take this local and national energy planning dimensions into account.

1.2. Establishment of legally separate DSOs

We envisage a future model where the DSO takes these regional energy plans and advises on how the electricity distribution network needs to be prepared to achieve the objectives at lowest cost. The DSO ensures that network investment decisions are taken in the interests of consumers i.e. the lowest cost options are always taken free from any asset-based bias. This arrangement means there is an effective layer of independent review, in addition to Ofgem's scrutiny, to ensure network capacity is required and delivered cost efficiently.

By retaining the DSO under the same ownership group as the DNO, one maintains the healthy tension of keeping costs down whilst not jeopardising security of supply. Responsibility for keeping the lights on remains with the DNO and under a single ownership group.

Legally separate DSOs with incentives to operate independently in the public interest offer an opportunity for Ofgem to ensure that the translation of demand into electricity network investment is objective and that the cost is minimised.

We strongly believe that future price control processes should mandate the legal separation of DSOs, coupled with high powered incentives to drive greater focus on developing the networks at the lowest possible costs for customers. Our own analysis of past performance, which we have previously shared with Ofgem, indicates that change is needed to ensure that network investment decisions are always taken in the interests of customers and legally separate DSOs are crucial in achieving this.

The combination of objective and informed demand projections arising out of RSPs, with the scope for legally separate DSOs to challenge and moderate DNO investment plans, offers Ofgem the opportunity to drive efficiency harder in customers' interests for the next price control.

2. The Case for Change

Question: Do you have any views on the case for change we have outlined?

A significant factor underpinning the case for change outlined by Ofgem relates to the uncertainty of decarbonisation pathways. We make three observations for considering how the case for change should influence the design of future price control regulation:

1. Assessing the effectiveness of changes proposed in RIIO-ED2 to address uncertainty. To Ofgem's credit, RIIO-ED2 will see the introduction of a number of innovations, such as automatic uncertainty mechanisms, combined greater data transparency of network capacity, which have the potential transform network investment planning. We believe these arrangements must be given appropriate time to be implemented and tested to understand if further fundamental changes are needed in future price controls.
2. Uncertainty of decarbonisation pathways must be considered in terms of its materiality on networks' expenditure to avoid upending the whole regulatory framework unnecessarily. When assessing the RIIO-ED2 Draft Determinations, load related expenditure which is principally influenced by decarbonisation, represents only 11 per cent of the total expenditure allowed by Ofgem. Therefore, any changes to the regulatory framework must also consider the factors that influence the other 89 per cent of network expenditure to avoid the existing benefits of the price control being diluted or completely undone. With respect to the latter we would suggest that a credibly independent DSO could provide a useful scrutiny function.
3. Lastly, Ofgem should inform its case for change based on a critical assessment of the RIIO-ED2 process to identify lessons to be learned. We believe there is definitely scope to simplify the price control by critically appraising areas such as:
 - a. The role of Customer Engagement Groups and whether they represented value for money for customers.
 - b. The information requirements placed on DNOs and whether this actually enhanced or informed Ofgem's investment decision making (e.g. all of the underpinning strategies to the core business plan).
 - c. Decarbonisation scenarios underpinning business plans. Clear guidance on a core scenario and a common assessment framework from the start would have saved an enormous amount of effort, improved comparability of DNO assessments and plans and put downward pressure on allowances for those DNOs assuming unrealistic reinforcement needs.
 - d. Whether the Business Plan guidance provided is reflected in the outcomes of the process.

3. Possible high-level options for the development of an updated network

Questions: 3. *Do you have views on whether the changes to the electricity or gas sectors mean that there is a case to consider alternatives to the approach taken in the RIIO-2 price control?*

4. *Are there any broad frameworks or options that you think we should consider, including variants and alternatives to those we set out?*

We summarise our assessment of the four different options which are put forward in the Open Letter below.

(1) Continued use of periodic reviews, with adaptations, for example to include incentives around whole system optimisation

The first adaptation we recommend would be to mandate legal separation of DSOs under common DNO group ownership for the reasons we set out earlier in this letter. This change must be combined with high-powered incentives to fuel greater ambition, change and benefits for customers. Ofgem's current proposed DSO incentive is set at 0.2% of Return on Regulatory Equity (RoRE). This is less than other incentives such as the interruptions incentive and broad measure of customer service – even though the value potential of the DSO to customers is far greater. We believe that this incentive needs to be *turbo-charged* to drive the change that Ofgem is seeking.

Other adaptations should also be considered given the changing external environment:

- Adapting the Broad Measure of Customer Service. For example to include assessment of services specifically in relation to low carbon technologies and tying this to incentive revenues/penalties. This would add significant weight to Ofgem's strategy for networks to not be a blocker to decarbonisation.
- Evolving the reliability incentive to reflect the fact that customers will become more dependent on electricity supply as heat and transport decarbonise. For example, this could include introducing an incentive to reduce multiple short interruptions or improving the total time not supplied using smart meter data with corresponding penalties if baseline performance is not achieved. This will drive the sector to be ready for changing customer expectations of their electricity supply.
- Various areas of engagement with local authorities could be specifically measured and incentivised (the first phase of this is proposed in the DSO incentive package), to ensure that networks provide the data and analysis which local government needs to facilitate local energy network planning.
- Whole system initiatives would be easier to support if the timing of price controls for gas and electricity (and possibly heat networks in future) were aligned. This would also make the development of regional system planning much easier; plans would have to be made in advance of the start of each price control process to enable network operators and Ofgem to benefit from the objective assessments laid down. In the first instance we would encourage Ofgem to think about starting GD3 according to the ED3 timetable. This should allow Government decisions on heat and hydrogen networks to be made in advance of network plans being drawn up.

(2) Alternative ex-ante incentive regime with simpler targets and a longer-term productivity incentive

We support the intent to simplify regulation. However, any evolution of the price control should not undo the significant progress made under the RII framework that has successfully aligned network returns with operational improvements that matter most to customers. The introduction of targets for totex, reliability, customer service, connection times and stakeholder engagement – all underpinned by high powered incentives has formed the recipe for delivering dramatic improvements for the benefit of customers. For instance, UK Power Networks achieved top spot in the recent Institute of Customer Services satisfaction index, beating well-known consumer facing brands. This would not have been possible without the customer service incentive regime (high powered and symmetric) that has driven competition and greater levels of ambition. In contrast, the water sector is still being publicly criticised by Ofwat for “failing to get the basics right.”

In short, simplification should not have the unintended consequence of undoing the excellent progress in improving operational performance that has benefited customers.

We believe long term productivity incentives should be explored further but to comment meaningfully on this, we would need to understand how Ofgem sees such measures either complimenting or competing with the current suite of benchmarking methodologies. The existing benchmarking approach for electricity distribution has a proven track record of revealing efficient performance across a wide range of activities that DNOs undertake to get the most efficient overall outcome for customers. The combination of top-down totex and disaggregated modelling for electricity distribution is far more sophisticated and advanced compared to models we have seen in the water sector, gas distribution, and transmission. If Ofgem's intent is to move away from this, a proper assessment should be undertaken to understand what improvements e.g. more use of uncertainty mechanisms would be available from such changes.

(3) Greater user/stakeholder participation to determine investment need (e.g. negotiated settlements with customer representatives or with a central planning body such as the FSO).

Negotiated settlements with customer representatives

Unlike in the Transmission sector, the Distribution sector is faced with a much broader suite of stakeholders ranging from domestic customers through to small and large businesses, as well as local government. Our stakeholder and customer segmentation therefore needs to be more granular and local for it to be meaningful in terms of informing decision making. For example, in the RII-ED2 planning process, UK Power Networks engaged over 19,000 people across our regions using multiple techniques. There are several learnings from this work that are pertinent in considering the suitability of negotiated settlements with customer representatives:

- Given the diversity and volume of stakeholders at distribution level, it's not clear how customer representative groups could be truly representative and have the legitimacy required to speak on their behalf without creating an unwieldy bureaucracy.
- When engaging on specific topics with customers, they typically find the decisions we take complex and often lack the base level of understanding to provide meaningful feedback. Therefore, the information that we provide to customers to inform the debate is crucial. How this issue would be resolved by adding another layer of customer representation between networks and end customers is unproven. If anything, it is more likely to create new issues

rather than focusing on how network companies can have better and more meaningful engagement directly and on an ongoing basis to inform their decision making rather than undertaking engagement solely for the purpose of a price control.

- Lastly, too often we see network companies using engagement techniques in areas where customers have no scope to influence, because actions are necessitated by regulatory rules or legislative requirements. This is not meaningful engagement, and it highlights that negotiated settlements can never fully replace the work that Ofgem does to assess the needs case for DNO proposed investments.

For the reasons described above, we do not believe negotiated settlements with customer representatives alone is a feasible solution for distribution network price controls.

Negotiated settlements with a central body e.g. FSO.

In a world of regional system planning for determining optimal pathways to net zero by local authorities and RSPs, independent DSOs would ensure that network development plans are robust and promote the lowest cost solutions for customers as we outline above.

It is important that we are clear about the roles and responsibilities of network companies in relation to net zero. We do not believe it is appropriate for regulated networks to determine the decarbonisation pathways for their regions. The role of networks should focus on ensuring that electricity network capacity is delivered when it is needed and at the lowest cost for customers in support of whichever pathway is chosen. We set out in our response above the importance of legally separate DSOs to ensure that investment decisions are taken in the best interests of customers. To deliver this objective, DSOs must work closely with the ESO and have high powered incentives to find the lowest cost whole system solutions.

Well-functioning and independent DSOs together with an effective FSO have the potential to provide Ofgem with an additional layer of objective scrutiny of proposed investments put forward by network companies in the price control. We believe this model has the potential to be much more effective than negotiated settlements with just the FSO because:

- **Scrutiny is more meaningful** – DSOs should have a better understanding of the local networks and stakeholders to identify solutions in a way that a centrally managed FSO would not be able to reasonably achieve given the size and scale of the engagement needed. Furthermore, DSOs are better placed with the capacity to analyse local markets at detailed, spatial level to make meaningful plans for each borough or town compared to a top-down approach from a central planning body, such as the FSO.
- **Incentives are aligned** – Both the DSO and FSO should have commercial incentives to identify and design whole system solutions that deliver better value for customers. They can apply their engineering and commercial skills at a far greater level of detail than would be possible by Ofgem in a timebound business planning process. This provides Ofgem another level of detailed, independent scrutiny. It is crucial therefore that Ofgem reviews the DSO incentive – in terms of value, KPIs and targets - to ensure it is driving the right behaviours and similarly for the ESO. The current proposed DSO incentive for RIIO-ED2 (at 0.2% of RoRE) is significantly underpowered in our view.
- **Local legitimacy of decarbonisation plans is reinforced** – This model provides clear responsibilities regarding decarbonisation. Local authorities are accountable for determining the optimal decarbonisation pathway for their region based on a democratic mandate. RSPs inform these plans with independent technical and economic analysis. DSOs convert these plans into network enhancements identifying solutions that deliver the required capacity on

time and for the lowest cost. DNOs deliver asset solutions where the DSO has assured that these investments are in customers' interests.

For the reasons described above, we do not believe negotiated settlements with a central body such as the FSO is the optimal solution given the potential benefits of having independent DSOs and RSPs working in conjunction with local authorities and the FSO, where transmission network interfaces are relevant.

(4) An ex-post regime

Based on comparisons with countries such as the United States, we are not inclined to support an ex-post or rate of return regulatory regime. The fact is that our regulatory system has created a sharper focus on reliability, service, innovation, and cost efficiency than any of the ex-post review regimes we have observed in other countries. We regularly host other utilities who are seeking to learn about the UK regulatory model. We have not yet come across another jurisdiction that has achieved similar levels of high performance. This is in large part due to RIIO's use of performance indicators and its level of focus on comparative benchmarking.

We recognise that there are ex-post elements in many systems, including our own, and we are not opposed to "truing up" as an element of uncertainty mechanisms, for example, but an entire system based on ex-post review would be a major change which would not appear justified based on the evidence we can see.

We encourage Ofgem to compare the RIIO framework with other regulatory frameworks across the world and find an alternative ex-post regime that has delivered the scale of improvements that we have seen under the UK system.

Furthermore, movement to an ex-post regime would need careful consideration to avoid ex post judgements taken with the benefit of hindsight. Doing so could risk introducing even more uncertainty - negatively impacting investment and possibly increased investor risks that would be reflected in a higher cost of capital as we observe in the US.

Conclusions

In our view, the current UK regulatory model is amongst the best in the world. It provides incentives for networks to innovate and deliver improvements benefiting customers. Importantly, it ensures that network returns are inextricably tied to better operational performance – focusing management on the things that matter to customers – safety, reliability, service, sustainability, connections and efficiency.

Any evolution of the regulatory model needs to preserve these positive attributes, whilst also evolving to ensure network companies are prepared to facilitate decarbonisation and a myriad of other external changes in our environment. It is encouraging to see Ofgem already implementing reforms, such as the introduction of uncertainty mechanisms in RIIO-ED2 to support a more agile price control framework.

We believe that the next evolution of the price control framework should focus on how network investment can be unlocked – consistently and in a timely manner - to support well justified local decarbonisation plans. Mandating legally separate DSOs with corresponding high-powered incentives, coupled with the establishment of RSPs is crucial to make this happen and ensuring that load related investment decisions are taken in the best interest of customers.

However, we believe that critical improvement in this area can be delivered by evolving the current system in a targeted fashion and Ofgem should guard against making unnecessary change in areas where RIIO works well and is successfully delivering for customers and where there is an absence of evidence globally that alternative arrangements would drive better outcomes.

Careful targeting and balancing of license conditions, incentives and sustained operational focus from Ofgem have driven superior results for customers because incentives have been aligned. We need to take this recipe for success and apply it to the next set of strategic challenges.

We look forward to engaging with Ofgem on our analysis and working with you to design the next evolution of the regulatory framework to be fit for the future and ensuring that the UK maintains its status as having one of the best regulatory systems in the world.

Yours sincerely



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