

Ofgem RIIO-ED2 Sector-Specific Methodology Consultation

Greater London Authority Response

September 2020

Introduction

The GLA is responding to Ofgem's consultation on the methodology that will be used to set the next electricity distribution price control (RIIO-ED2) starting in April 2023, because it is critical to helping London decarbonise by 2030.

The Mayor sets an overall vision for London. This consultation is particularly relevant to the Mayor's duties to create plans and policies for the capital covering: Business & Economy; Environment; Housing and Land; Planning; Regeneration and Transport. This detailed response to the consultation questions should be read in conjunction with the Deputy Mayor's covering letter which sets out the GLA's key priorities in this area.

1. Net Zero and Innovation

OVQ3

Do you agree with our proposed approach to a Net Zero re-opener?

We welcome the principle of incorporating a Net Zero reopener into the price control framework, however we have significant concerns with the current proposals and seek clarity on how the proposed approach would work in practice in a London context.

We believe the price control framework (and its key mechanisms, including reopeners) must be compatible with supporting London (and other regions) to rapidly accelerate our decarbonisation pathway. As set out in the London Environment Strategy¹ we believe the UK energy system is moving towards a more locally driven system, steered by local planning and policy interventions across the built environment, transport system, and development of local energy resources. Changes in network regulation in recent years are even reflective of this with the more active role that DSOs will play in managing these changes at a local level. However, the proposed net zero reopener scope makes no explicit reference to local or regional triggers, including material changes to regional net zero ambition, nor local decarbonisation initiatives. If it is Ofgem's intention (as implied by Annex 3, p85) to include local or regional reopeners elsewhere in the price control this needs clearly stating.

We recognise the balancing act that Ofgem must play in ensuring that local and regional decarbonisation initiatives are able to align and fit with an overall coherent decarbonisation pathway for the whole of the UK, and thus accept that a degree of centralised 'top down' planning is essential. However, we consider the necessary mechanisms to bridge the 'top down' and 'bottom up' approaches to decarbonisation are missing from the proposals (see below). This local and

¹ <https://www.london.gov.uk/what-we-do/environment/london-environment-strategy>

regional representation gap in Ofgem's current thinking was discussed during a productive meeting between Jonathan Brearley, Shirley Rodrigues, London's Deputy Mayor for Energy and Environment, and Jules Pipe, Deputy Mayor for Planning, Regeneration and Skills in September 2020. It was noted that the GLA (representing London) is presently not a member of Ofgem's Net Zero Advisory Group and agreed that further discussion must take place to understand how London can attend and contribute at these meetings.

Aside from the primary concern above (whether the reopener accommodates regional initiatives), we have further questions about how a net zero reopener would work in practice, including what evidence Ofgem would need in order to trigger it. There is a risk a protracted reopener process could unnecessarily delay the delivery of Mayor's 2030 decarbonisation strategy (by delaying the network investment needed to support it). It's essential there is understanding and agreement as to what a workable reopener process would look like, which should include an emphasis on Ofgem to publish its reasons in the event of rejecting or modifying such a request.

We recognise any approach Ofgem ultimately takes to support accelerated regional ambition (through a reopener or the wider framework) will require consistency across all devolved and metropolitan regions, and welcome continuing discussions with network companies and other devolved regions through Ofgem's RIIO ED2 working groups.

OVQ4

In what circumstances, would a centralised approach to setting forecasted outputs be appropriate? What form should this take?

The centralised approaches set out in the consultation do not adequately factor in regional and local considerations, and in our view do not provide a credible approach to forecasting and planning for net zero. Circumstances in which a centralised approach would be favourable include instances where there is a uniform decision across the country, e.g. a central decision to move gas over to hydrogen nationally.

However, heat decarbonisation is unlikely to be uniform, requiring a range of different approaches in different regions, and also in every local area and home. This is particularly true of London where the density and proximity of buildings means that heat networks may have more of a role than in less urban areas. Another example of how London departs from national uniformity is that London has the highest percentage of EV charging points in the country² with the number expected to rise sharply in the near future. London has roughly 5,151 electric vehicle chargers at present, of which 437 are rapid charge points. It is estimated that this figure will have to substantially increase by 2025 to between 2,300-4,100 rapid charge points and between 33,700-47,500 slow to fast charge points³. The decarbonisation of London's transport system is well underway, and almost wholly driven by local factors – a mixture of infrastructure decisions, policy decisions (such as the introduction of the 'Ultra Low Emission Zone') and generally faster uptake of electric vehicles in the city. **This is an example of driving investment at a local scale; this is unlikely to be captured by central planning at national level.**

² <https://www.current-news.co.uk/news/over-18k-ev-chargers-installed-across-uk-as-london-continues-to-take-the-lead>

³ London electric vehicle infrastructure delivery plan (June 2019)

Whilst we understand Ofgem's rationale for DNOs to work from a central forecast, we believe this 'top down' approach risks stifling innovation and being inefficient. With the right resources and information, local areas are best placed to determine the low carbon demand coming on to their networks and thus it is essential that scenarios are developed that reflect local needs through stakeholder engagement – i.e. Model D (see OVQ6 below). Ultimately, there is a risk that a 'one size fits all' approach misses regional strengths and could delay decarbonisation progress, thereby leading to higher costs to consumers.

Noting the potential centralised forecasting approaches set out in the consultation document (p31), we highlight the specific issues below:

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1) *"A single, central forecast scenario which the DNOs would be required to disaggregate on a regional basis."*

- The pace at which regions are able to decarbonise will vary, and whilst a centralised approach must be appealing for Ofgem to undertake comparative assessment of companies, it is unclear how constraining local ambitions serves consumer interests. Ofgem should not set a price control that curtails local innovation and action.

2) *"A specification of the forecast volume of LCTs (i.e. heat pumps or electric vehicles) that DNOs should plan to accommodate in each region"*.

- Local areas are best placed to determine forecast volumes for their areas, and then ultimately influence their uptake through policy. While National Grid's Future Energy Scenarios (FES) may be helpful to inform DNOs regional forecasting outputs, it's essential they do not substitute for robust, bottom up forecasting arrived at through extensive local engagement
- The Mayor, for example, has set out policies to incentivise the use of low carbon heating technologies in new buildings and developments. The current London plan⁴ includes new energy efficiency targets and a heating hierarchy that encourages developers to ensure new buildings are built to high standards and move towards low carbon forms of heating. Similarly, London is moving fast on transport electrification as mentioned above.

3) *"A requirement on DNOs to demonstrate how their forecast and investment plans are consistent with national policy in specified areas (i.e. a BEIS-led approach to heat decarbonisation)."*

- The ability of local and regional governments to go further and faster on their net zero ambitions is critically important given the lack of ambition to date at the national government level to put the UK on a path to net-zero outside of the power sector. For example, to achieve our net-zero ambitions even by 2050, at least 70 per cent of London's buildings need to reach EPC C energy efficiency standards by 2030⁵ which will be necessary to facilitate the deployment of low carbon heating systems such as heat pumps.

⁴ Mayor of London, (Dec 2019), ['The London Plan- Spatial development strategy for Greater London'](#)

⁵ Element Energy (Sept 2018), ['London's Climate Action Plan: WP3 Zero Carbon Energy Systems'](#)

OVQ6

Alternatively, in what circumstances would it be more appropriate to take a decentralised approach to determining forecasts?

Of the strategic investment models set out for consultation by Ofgem, model D is most compatible with London's decarbonisation objectives, allowing for regional variation and greater flexibility in response to uncertainty. However, it is not clear whether model D alone would be sufficient to allow devolved organisations to dictate the pace and scale of change in their regions, and we would welcome further dialogue with Ofgem.

We strongly argue that supporting local and regional ambition will ultimately support an optimal pathway to national decarbonisation. For example, the GLAs 1.5 Compatible Climate Action Plan⁶ details the policies, measures and uptake scenarios for technologies across buildings, heat, transport and smart systems to enable us to achieve a net zero objective by 2050⁷.

It is essential the price control can enable network operators to invest in support of the most economic pathway to meet local ambitions, including supporting demand side capacity building through energy efficiency, flexibility and the deployment of local low carbon energy resources. Active engagement from local stakeholders is essential to ensure these measures are built into the energy system (at a local level), and evidence highlights doing so brings significant value to the national system. For example, GLA is supporting the 'Flexibility in GB'⁸ project, led by the Carbon Trust working with Imperial College. While focussing on the value of flexibility to the national system, the project will also examine the role and value of local, smaller scale flexibility assets in delivering useful services for the regional and national energy system. Early results support the case for deployment of flexibility at all levels of the network (including local and residential), and highlight the value in harnessing the inherent flexibility of local assets which have other primary purposes (e.g. electric vehicle chargers or hot water tanks). The report is due to be published in March 2021⁹ and we expect Ofgem to review and act on the findings accordingly.

We also welcome further dialogue with Ofgem and other local and regional authorities around the potential role of local and regional authorities in supporting the operation of the future energy system. As highlighted in the consultation, a more active local role exists through the Local Area Energy Planning (LAEP) process, and It is currently not clear exactly what role the devolved

⁶ <https://www.london.gov.uk/what-we-do/environment/climate-change/climate-action-plan>

⁷ Note this document precedes Sadiq Khan's ambition to bring forward the net zero deadline from 2050 to 2030.

⁸ <https://www.carbontrust.com/news-and-events/news/how-can-a-flexible-energy-system-help-deliver-net-zero>

⁹ The Flexibility in GB project [<https://www.carbontrust.com/news-and-events/news/how-can-a-flexible-energy-system-help-deliver-net-zero>], is exploring the potential for an integrated and flexible energy system to reduce the cost of reaching the UK's net zero goal by 2050. It will model cost optimal net-zero energy system development in 2050 and analyse the steps required to set us on the path to net-zero. It follows a 2016 report by Carbon Trust and Imperial College London which indicated that deploying flexibility in the electricity system could save GB £17- £40 billion by 2050 (while reducing emissions by 80% relative to 1990) [<https://www.carbontrust.com/news-and-events/news/capturing-the-benefit-of-a-smart-flexible-energy-system>]. Early results indicate that the value of flexibility is maximised through harnessing the inherent flexibility of assets which have other primary purposes, enabling cross-vector coupling (e.g. using electrolyzers to generate hydrogen when supply of electricity exceeds demand), roll-out demand side response, as well as deploy dedicated flexibility and storage assets, such as batteries and pumped hydro. Results also indicate that flexibility is deployed at all levels of the network, from local, residential solutions up to large scale.

authority would play in supporting some of these elements. Working closely with the DSO, we believe cities and combined authorities are well placed to support a more co-ordinated whole system approach across power, gas [hydrogen], heat networks, and regulation. The work done by GLA around integration and coordination between utilities is a good example of how this could work.

Subject to the caveats noted in OVQ8 below, we believe Local Area Energy Plans are a key tool in developing robust, unbiased local and regional energy plans, and as part of broader engagement and modelling, can further strengthen the accuracy of regional forecasts.

OVQ7

What would be the factors that we should take into account that would give us high certainty in forecasted outputs derived through a decentralised approach?

Higher certainty can be aided through effective local engagement, whole system analysis and independent test and challenge. We are working with UKPN to ensure regional forecasts are as accurate as possible through their DFES work and have a plan to develop the areas below. For regional forecasting to work across the UK, there will need to be further capacity building for local and regional authorities, including meaningful engagement with local stakeholders on their own terms.

Factors to take into account:

- 1) Use of best available data (including planning) from both the DNO and City datasets. No single party holds access to all the necessary datasets so there needs to be close collaboration and open data sharing between DNOs and key regional stakeholders. In London, the GLA has unique access to a number of city data sets which, combined with policy insights, can support the DNO to accurately plan for future investment on their networks. The ambitious digitalisation plans (referred to in the Modernising Energy Data [MEDA] section) will improve the information available (for DNO's to have visibility and understand utilisation on their networks).
- 2) Development of a range of scenarios that have been developed, questioned, and analysed in close collaboration with key stakeholders. We have found that assumptions on low carbon technology (LCT) drivers and demand uptake can vary a great deal, meaning independent challenge and debate is essential in reaching a sensible consensus.
- 3) Local forecasts should be tested against available data and independently reviewed (we would expect DNOs to commission a third-party review). There should be evidence that the developments are likely to progress (e.g. DevCos established, land identified, prior development evidence that plans develop in accordance with expectations).
- 4) A prioritisation of low regret investments to enable decarbonisation where we cannot be certain of future outcomes. We think that Ofgem should be seeking low regret actions (and not just high certainty). To reflect this, a key part of our project plan with DNO's is to identify priority areas for collaboration, including LAEPs and other 'area based' approaches to decarbonisation (targeted action).

Regional and local authorities therefore have several unique characteristics that can support efficient network planning and operation, ensuring the regional forecasting process is as accurate as it can be. These include local powers (see OVQ4 above), models and datasets (see OVQ8 below), and a unique role as a convenor of different stakeholders, operating in their geographical areas, e.g. the Electric Vehicle Infrastructure Taskforce, which has set out clear ambitions of the number of charge points to be deployed in London together with actions to achieve these goals.

OVQ8

Do you consider that the LAEP Best Practice guidance produced by the Centre for Sustainable Energy and the Energy Systems Catapult provides adequate checks and balances to ensure that local or regional energy plans are robust, unbiased and have broad support?

We welcome the inclusion of Local Area Energy Plans (LAEPs) in the proposed framework and the best practice guidance. However, further work is needed in several areas to clarify how LAEPs can best function in practice, as outlined below:

- Greater clarity for regional authorities on roles and responsibilities, including a potential framework to formalise this approach alongside resourcing;
- Clarity on how Ofgem will consider LAEPs pushing for accelerated local ambition, understanding the limits to regional/local authority capacity, skills and powers to influence the energy system; and,
- Further guidance on engaging energy end users in what are likely to be highly technical processes.

Clarity for regional authorities on roles, responsibilities and resourcing

First, we would welcome Ofgem's view on the role of cities and devolved governments in supporting LAEP preparation, alongside the evolving role of the DNO/DSO. The best practice guidance suggests that, for cities with devolved mayoral authorities, LAEPs should be developed at the local level and aggregated into a metropolitan-scale plan. While we agree the proposed provision of a standardised set of assumptions and inputs to be used for certain elements of LAEP preparation would help, it is unclear how a consistent approach could be achieved across local planning processes without the leadership of the regional authority. As an example, access to the right datasets will be paramount to the efficient rollout of local energy planning. The GLA continues to facilitate greater transparency and local empowerment through access to our data platforms, such as the London Heat Map¹⁰, Infrastructure Mapping Application¹¹, building stock model¹², solar mapping tool¹³, and EV charge point utilisation map (in development). The use of consistent tools within regions would reduce the burden upon Ofgem for scrutinising local plans and help to understand interdependencies between infrastructure systems. Where appropriate, incentivising DNOs to collaborate and build upon existing local and regional initiatives to develop these tools would avoid potential expensive duplication.

A clear mandate from Ofgem is needed to crystallise these roles and to ensure engagement from all players. For instance, it is critical that Ofgem encourages and incentivises network companies to

¹⁰ <https://www.london.gov.uk/what-we-do/environment/energy/london-heat-map>

¹¹ <https://maps.london.gov.uk/ima/>

¹² <https://www.london.gov.uk/what-we-do/environment/energy/energy-buildings/london-building-stock-model>

¹³ <https://www.london.gov.uk/what-we-do/environment/energy/energy-buildings/london-solar-opportunity-map>

work with local authorities to develop their LAEPs. Similarly, given the varying interests of the actors likely to be involved in LAEP preparation, including DNOs and GDNs, Ofgem may need to mandate the involvement of a neutral third party to facilitate the process, such as a regional authority, supported by a new framework to formalise the responsibilities for different actors.

In addition, guidance is required over how Ofgem anticipates LAEP preparation to be resourced, both in terms of skills and funding. LAEP preparation will require a considerable level of expertise, which extends beyond the traditional remit of both DNOs and local/regional governments. Given the standard of evidence required to influence DNO business plans, how does Ofgem expect these skills to be provided, and what funding will be provided to support local capacity? Furthermore, Ofgem should provide incentives for DNOs to collaborate with and build capacity within local authorities, combined authorities and/or city mayoral authorities for LAEP preparation. LAEPs will need to work for both local authorities and DNOs and currently there is limited funding available to build such capacity in skills and resources. This work should be funded through the price control mechanism as opposed to coming from local authority budgets.

The GLA has decided to produce a LAEP for the Isle of Dogs, working with the London Borough of Tower Hamlets, gas and electricity DNOs and other key stakeholders. This pilot is being funded by utilities as a one-off through the TfL Lane Rental Scheme. The aim is for this LAEP to inform and feature in London DNO 2021 draft business plans and set out how LAEPs across London can be taken forward using funding models tied to the price control.

Supporting local ambition

The guidance notes the importance of ‘fore-runners’ in pursuing decarbonisation faster than national policy. However, the guidance also acknowledges that local authorities have limited powers to influence energy system development, inferring local authorities will struggle to demonstrate the deliverability of their ambitions. How will Ofgem account for this mismatch in their treatment of local/regional plans of greater ambition than national policy?

Engaging energy end-users

We welcome the guidance’s advice on stakeholder engagement. Local legitimacy and engagement are rightly at the heart of the LAEP process, supporting alignment to wider local planning for growth and regeneration and ensuring democratic accountability. A key question on which further guidance would be helpful, and which will likely need to be answered through doing and learning, is how to make these technical processes accessible to energy end-consumers, whose buy-in will be critical to implementing the low carbon transition.

In summary, the LAEP approach has been presented by Ofgem as the key mechanism that can underpin a credible, bottom up approach to decarbonisation (i.e. model D). While we welcome this, we also note with caution that it is essential Ofgem do not make any final decisions on an approach to strategic investment based only on the viability of LAEPs today. For the reasons outlined above, there is much learning to do, and the timeline will not fit neatly with Ofgem’s price control timelines. A thorough LAEP is time consuming and expensive, and the high threshold for information and data means that it is essential adequate funding and time is provided. This will require close working with DNO/DSOs and local councils and requires a clear and transparent process for understanding how roles can be crystallised and where money will come from. At the

same time, Ofgem should set reasonable evidence hurdles for low regrets investments and be careful not to set best practice barriers at a level that is not workable in practice.

OVQ9

Which of the uncertainty mechanisms and incentives in Appendix 3 will be most effective in enabling efficient strategic investment?

The Mayor's priority is to ensure the uncertainty mechanisms put in place for RIIO ED2 can support his ambition for an accelerated target for net zero, meaning strategic investment needs to become available sufficiently in time to meet the need.

We recognise the need for and welcome the increased shift towards adaptive regulation that Ofgem have taken, which will enable DNO's to respond with agility to the uncertainties in delivering net zero that will play out over this period. It is critical for local and regional authorities that there is an appropriate mix of mechanisms and incentives to support DNOs to act at the right time and in the right circumstances. Equally important is the need for closer dialogue between regional and local government (to ensure the mechanisms and their triggers are well understood, and happen in a timely way) and that DNOs are resourced to fully support any necessary evidence building (well ahead of the price control).

While the exact mix of mechanisms requires further dialogue with London's DNOs and Ofgem, an appropriate framework should ensure there is:

- A substantial baseline allowance for well justified investments
- A set of pre agreed allowances DNOs can access that are linked to suitable Price Control Deliverables (PCDs)
- A mechanism that allows further allowances to be proposed with minimal delays. In practice this could represent 'annual reopener' windows in the first three years of the price control. Ofgem could ask DNOs to consult 6 months ahead of triggering it if they believe evidence is mounting.

It is not clear how the proposed reopeners would work in practice. New evidence being developed through the price control period (including robust regional plans to deliver more ambitious net zero ambitions) may identify the need for additional allowances. However, the reopeners are likely to need significant evidence, seem geared towards large additional allowances, and seem likely to be restricted to two brief windows (2024 and 2026). In such a short price control, there is a risk that by the time any detail is agreed, the price control could be over, potentially further delaying decisions until ED3 (2028-33). The framework needs something more than a 'reopener' to ensure that DNOs are not incentivised to avoid investment in a low carbon future until a specific allowance is given to them. Alternatively, we'd be interested to understand if Ofgem have explored the feasibility of a reopener running beyond ED2 and (ringfenced) into ED3? We discuss the related issue of strategic investment to support new housing development later in this response (COQ38).

OVQ10

Do you agree with our proposals to increase levels of BAU innovation?

We agree that innovation by the networks is essential and we support greater levels of BAU innovation that has been proven to support network decarbonisation and minimise costs to consumers. RIIO ED2 must provide incentives (that reward low - medium risk innovation projects) and minimum requirements for DNOs to innovate.

However, it is essential that any support for innovation leads to more 'mainstreaming' across networks and with stakeholders than has happened in the past. This means getting better at learning lessons, disseminating findings and scaling successes, and is a key reason why cities / regional authorities must be closely involved in these processes – something that's not happened to date. The GLA have a critical convening, enabling and delivery role, but are too often left on the outside of DNO-funded innovation projects, meaning lessons cannot be transferred from one local area / London Borough in London to another so scale up is achieved. Focusing innovation reform on key energy system challenges and opportunities must also respond to regional and local systems and their needs. There is not a UK list of challenges and opportunities that are relevant to all politically mandated administrated boundaries. Similarly, plans for innovation (and their quality) must involve third parties like the GLA and London Boroughs, with Ofgem providing a recourse mechanism if plans are not fit-for-purpose.

We would appreciate further clarity on the following:

- A better understanding of how stakeholder suggestions or objections can feed into BAU innovation decision-making and delivery. We welcome requirements relating to the composition of consortiums and project partnerships bidding for funding, to ensure collaboration with third parties, however, are unsure how this will work in practice.
- Any innovation schemes funded by Ofgem should ensure that the fund raising does not disproportionately affect fuel poor or vulnerable households.
- We have a slight concern that prohibiting demonstration in the UK of technologies tested elsewhere but with no UK market history might stifle innovation other than through large companies who have the resources to support any DNO costs for demonstration projects.

OVQ11

Do you agree with our proposed methodology in relation to the RIIO-2 Strategic Innovation Fund?

We welcome Ofgem's recognition that support for research and development and innovation-led trials is necessary in key strategic areas to minimise the cost of decarbonisation for consumers. However, it is critical that 3rd parties such as regional and local authorities are able to shape how and where this funding is channelled, and sufficient funding resources are made available to these stakeholders directly (either through the SIF or other mechanisms) to play critical roles in place-based innovation. As an example, the need for strategic innovations must be detailed in LAEPs so that SIF proposals and funding results in delivering community, (place-based) needs and opportunities rather than proposals overly directed by the DNOs' own interests. Both strategic and network innovation projects must incorporate non-network and consumer facing innovation.

We welcome Innovation Challenge requirements relating to the composition of consortiums and project partnerships bidding for funding, which must ensure collaboration with third public interest parties. However, we await to see if this goes far enough in ensuring 3rd parties are able to sufficiently direct and benefit from these funding pots.

OVQ13

What are your thoughts on our proposals to strengthen the RIIO-ED2 NIA Framework?

We welcome proposals to retain funding through the Network Innovation Allowance (NIA) to enable DNO's to help address issues related to the energy system transition and consumer vulnerability. Further guidance is needed on how 3rd parties can engage, and what mechanisms will be put in place to ensure local areas are shaping outcomes. Local and regional authorities are already working within tight budgets, and this will be severely impacted as a result of COVID 19 and linked recession.

It is clear local and devolved authorities must become more active in innovation projects to test and prove decarbonisation solutions. However, to date it has been challenging to understand how the GLA can access innovation funding pots through the DNOs. Either specific funding pots should be made available to enable collaboration between local and regional authorities, DNOs and other stakeholders or further scrutiny is needed by Ofgem to ensure DNO's are proactive in involving third parties and collaborating with intent. To date we have had some collaboration with UKPN through innovation projects (e.g. Low Carbon London and Home Response – a BEIS funded domestic DSR project). We would welcome the provision of clear guidance and expectations of DNO's to ensure that NIA funding can be accessed, shared and influenced by local authorities.

We welcome the steps taken to make it easier for third parties to engage and access the framework, but question if more could be done to open these funds up so that non-network companies can be involved – including without network companies as partners if they wish? Could one way to ensure greater (unbiased) collaboration involve a shared 'use it or lose it' allowance for DNOs and third parties for the length of the price control? This would improve transparency and simplify the process for third parties wishing to engage with innovation projects, who would be able to approach DNOs at a time of their choosing.

2. Modernising Energy Data

OVQ16

Do you agree with our approach to regulating digitalisation and better use of data through the introduction of cross-sector licence obligations?

Improving access to high quality energy data is central to decarbonisation, enabling greater visibility of energy flows and the status of network infrastructure. The GLA recognises the critical role that data (and enhanced data sharing practices) must play in accelerating London's net zero energy transition, and therefore welcome Ofgem's proposals to introduce data license obligations for DNOs. However, further detail would be helpful on what data will be prioritised through these obligations and what mechanisms will be employed to ensure that company plans are sufficiently

ambitious. It is also noted that the current guidance does not provide clarity on the role of cities in the data system or acknowledge the value that these regional actors can add through their data resources. Please see the following detailed comments for:

- GLA's lobbying with government and utilities on mandating data sharing;
- The need for high quality data including operational resource to support this; and,
- Data to support local and regional authorities on supporting decarbonisation, including how local authorities can help to coordinate across the energy sector.

Mandating data sharing

The GLA's experience working on data sharing efforts in London's infrastructure sector has demonstrated that data sharing can benefit the GLA, the public and the network companies themselves; indeed, the GLA's flagship Infrastructure Mapping Application¹⁴ was developed at the request of, and with funding from, the DNOs and other utilities. The GLA has been lobbying government and utility companies this year to stress that data sharing is important, creates significant benefits, and should be mandated as far as possible. A recent letter from the GLA's Chief Digital Officer to the Department of Culture, Media and Sport is attached to this response as an appendix. This sets out the challenges the GLA has uncovered from its efforts to promote data sharing and makes the case for mandating the sharing of infrastructure data within cities. We have shared this letter previously with Ofgem and appreciate the support you have displayed of our key asks.

High quality data

We welcome Ofgem's proposals that all work relating to data as part of innovation projects funded via the NIA and SIF will be expected to follow the Data Best Practice guidance. Ofgem's objective must be delivering useful, high quality data, not data for data's sake. It is therefore important that funding for digitisation and data sharing through business plans does not focus exclusively on the 'capital investment' of enhancing a DNO's digital capacity. A key lesson from the GLA's extensive engagement on data sharing with DNOs and utilities in other sectors is that the operational resource required to maintain high quality data and to coordinate requests for data from other organisations should not be overlooked. We want to work with electricity (and gas) providers to embed data sharing and digital tools in their processes and governance structures, but this will only be possible if adequate funding is provided to enable proper resourcing of their data management functions.

Supporting decarbonisation

Greater openness, transparency and sharing of relevant city and energy system datasets will be essential in unlocking and accelerating energy and decarbonisation projects across London, enabled by greater visibility of energy flows and status of network infrastructure. DNOs need to have visibility of data in terms of what the market is doing in using resources so they can adequately meet demand and understand impacts on the network and what is influencing usage. The GLA is already involved in collaborative projects to improve access and fully realise the value from data in relation to key strategic use cases. As an example, we are currently working with the Digital Catapult and several charge point operators to explore how real time data from EV charge points has the ability to provide significant value to a diverse set of stakeholders (including public authorities, energy companies for grid reinforcements, navigation service providers and citizens).

¹⁴ <https://maps.london.gov.uk/ima/>

We are also able to draw on and share examples from the Mayor's delivery programmes. For example, a key finding from the Mayor's FlexLondon programme was that end-users and energy service providers would find it useful to have visibility of more granular localised data (or representations) of low-voltage network utilisation, and future costs (or prices) for network capacity. This would enable better evaluation of business cases for local and site-level investment in renewables, storage and flexibility, helping accelerate the net zero transition. DNOs data (and assumptions) on the networks should be as transparent as possible to aggregators and consumer groups to encourage development of new energy services that could benefit consumers and the energy transition.

OVQ17

Do you agree with the proposals we have set out to support optionality for wider institutional change should we later decide to separate DSO functions from DNOs? How else could the methodology support optionality?

The proposals set out to support optionality for later institutional change are sensible. It is not clear that separate system operator's (SOs) for different energy vectors at a local level is necessarily the right long-term answer, but at this stage there is no pressing need for structural change. In the medium term however, we support the need for further guidance to be provided around organisational structure and functions.

We have three further observations about the proposals:

- 1) It is presently not clear whether Ofgem's view of the DSO will lead to the development of resources needed to drive the right long term efficient outcomes that are needed in the system – specifically in relation to energy efficiency and flexibility. There is an expectation that markets will deliver this if DNOs signal a need, but this is far from clear at present. Demand side technologies are harder to measure and have been taken up less strongly in national markets. DSOs should be encouraged to look at the optionality benefits of developing long term flexibility and efficiency to minimise long term costs beyond ED2 and whether they can construct frameworks to incentivise its development. Clarity is needed where this coordinated whole system responsibility lies (see response to OVQ24 below).
- 2) We would like to better understand how local and regional authorities can work more closely with the DSO in the future and would welcome further dialogue with DNOs and Ofgem. In principle, this could include certain DSO incentives being set at regional level by devolved / local government, including in the following areas:
 - Flexibility markets. The DSO will clearly play a critical role in their development, and as cities in particular represent huge demand centres - close collaboration will be required to fully realise the potential of that flexible demand (in a way that drives local, city priorities as well, such as improving air quality).
 - Improving co-ordination between the multiple DSO transition projects that take place across London (involving both public and private sector). Currently there is a risk that projects are being run independently, resulting in inefficient spending.

- Participation in the LAEP process (see points above), including how DNO/DSOs will be incentivised to support local 'place' stakeholders. As an example, should the DNOs have specific teams to coordinate climate mitigation development plans, whose remit is to coordinate and pool together network development plans to ensure they're delivered in the most efficient manner?

3) We anticipate that at some point in the future, DSO functionality will lead to changes within the DNO function too, e.g. in less need for traditional investment. It would be helpful to see the DNO's business plans make this clear, explicitly calling out in the "traditional" functions / investment lines how these are being impacted by DSO / what they would be without DSO.

OVQ23

Do you agree with the DSO roles, principles and associated baseline expectations in Appendix 5? Does it provide sufficient clarity about the role of DNOs in RIIO-ED2? Do you think amendments or additional baseline expectations are required?

The GLA largely welcomes the DSO proposals set out, and in particular those that drive a more consistent approach to valuing flexibility, support the growth of non-network solutions, and rapidly accelerate digital and data sharing best practices.

However, further clarity is needed on how Ofgem envisage local and regional authorities engaging with DSO's. As noted in our answers to previous questions, we'd welcome dialogue with Ofgem to better understand how London can work alongside DSOs in a future regulatory system. The Mayor has regulatory powers over the transport system and built environment, while Ofgem regulates heat and power. These worlds are colliding fast and joined up dialogue is needed. Cities will have a role in making DNO/DSO investment plans efficient and could potentially support Ofgem with consumer engagement locally (in collaboration with DNO/DSOs)? However, the dialogue to explore these dynamics fully is currently non-existent and the channels Ofgem has in place (including CEG, user groups, challenge group) are insufficient.

4. A Whole system approach

OVQ24

Are there any electricity distribution specific barriers to whole system solutions, and if so, are there any sector specific price control mechanisms to address these?

Building on our answers to other questions, we note the following barriers:

- Network data and information asymmetry: Visibility of all local resources behaving flexibly is essential to development of an efficient whole system (hence we're strongly in support of the MEDA measures above). It is essential that markets receive the right signals from policy makers and SOs to ensure investment in efficiency, flexibility and infrastructure can happen in a timely manner.
- The regulatory system is not joined up, with Ofgem regulating gas and electricity, and likely to regulate heat networks; GLA partly regulating transport and the built environment while

central government sets overall policy. It is essential that Ofgem finds a way to adopt a more local focus to understand how to optimise between local and national.

- The potential lack of funding available for LAEPs (see OVQ8 above) may continue to delay whole system thinking. The Isle of Dogs LAEP, supported by GLA, highlighted this challenge. The electricity and gas DNOs have very different and incompatible views of the future of the networks. In the absence of broader government action, the LAEP process will be critical in initiating this cross-vector conversation and it is thus essential there is adequate funding for it both ahead of and during the RIIO ED2 period. Ofgem ensuring that DNOs and GDNs could support funding of LAEPs would be a helpful starting point.

OVQ27

Do you agree with our key proposals for the Coordinated Adjustment Mechanism (CAM)?

We agree that companies should be able to reallocate spending between themselves if it allows for more efficient delivery and reduced disruption, and we also agree that exploring whole system options should be business as usual for DNO's. However, we question the extent to which Ofgem's proposed approach will ensure this happens in practice, especially if no financial incentives are offered to DNOs to use the CAM.

OVQ29

Do you consider that the current electricity distribution licences should be amended to include the CAM, or wait until in 2023 at the start of their next price control?

Current licences should be amended if this creates additional short-term opportunities for efficiencies, disruption reduction and collaboration.

5. Access Significant Code Review & impact on RIIO-ED2

OVQ30

Do you agree with the impacts of our potential Access SCR proposals that are identified in this Chapter? Are there additional impacts that are not identified?

We broadly support the principle that it is important to have cost reflective charges and give greater incentives to use the system flexibly and efficiently and support the development of demand side technologies that promote a smart decarbonised system.

That said, we are concerned that the multiple workstreams and consultations that Ofgem are consulting on still feel piecemeal, rather than providing a clear strategic direction. We seek further guidance on how the Access and Forward-looking charges Significant Code Review (SCR) and RIIO ED2 framework will both come together to support a long term vision, including one that fully values and incentivises critical demand reduction initiatives (including energy efficiency and flexibility). It is currently not clear how access and forward-looking charges and flexibility markets will interact (e.g. how smart flexible demand will be incentivised to emerge to maximise the use of network and low carbon generation capacity?).

6. Impact of COVID-19 on RIIO-ED2

OVQ34

Do you think we need specific mechanisms in RIIO-ED2 to manage the potential longer-term impacts of COVID-19? If yes, what might these mechanisms be?

The Mayor has recently worked with London's statutory providers to agree an acceleration of £1.5 billion of planned investments under current business plans to support economic recovery and job creation.¹⁵ The collaboration will progress projects to support a green recovery, helping to counteract Covid-19's damaging impact on the economy. GLA is working to align this programme with skills programs and in identifying employment opportunities, especially for young people and Londoners from Black, Asian and other minority ethnic backgrounds who have been disproportionately affected by the crisis.

Depending on the nature of the recovery over the next two years there may be merit in allowing a front-loading of planned investments in ED2 to provide a further medium-term economic boost. Similarly, Ofgem should ensure that ED2 does not frustrate local attempts to support economic recovery through the acceleration of decarbonisation investments. Ofgem should also ensure that any delays on the strategic development of infrastructure in London caused by COVID-19 are appropriately addressed in ED2 or the ED1 closedown.

COVID-19 further highlighted the potential value an integrated, flexible energy system would bring. In May, National Grid announced that an additional £500 million spending would be needed on balancing the electricity grid as a direct result of stress factors caused by the Government Lockdown. The Flexibility First Forum calculated that up to £133 million of these grid balancing costs could have been saved if smart electric vehicle (EV) charging and smart tech adoption had been more wide scale¹⁶ (i.e. if a mature functioning flexibility market had been in place).

Annex 1- Delivering value for money services for consumers

Meet the needs of consumers and network users: Consumer Vulnerability

OUTQ19

Do you agree with our proposed approach to ensuring consumers in vulnerable situations receive an appropriate range and level of support in RIIO-ED2? If not, what alternative approach should we consider?

Addressing fuel poverty and supporting vulnerable customers is a key priority for the Mayor, and we welcome the importance placed on this by Ofgem and the DNOs. While we haven't commented on the proposals specifically, we would welcome further dialogue with Ofgem and London's DNOs to ensure that all initiatives in the London area are fully joined up and complement each other.

¹⁵ <https://www.london.gov.uk/press-releases/mayoral/15bn-of-infrastructure-work-over-next-two-years>

¹⁶ <https://www.current-news.co.uk/news/smart-charging-could-have-saved-133m-in-grid-balancing-costs-during-lockdown>

Maintain a safe and resilient network

OUTQ44

Do you have any views on our proposed Network Asset Risk Matrix (NARM) framework?

Infrastructure systems are increasingly linked and interdependent, and this is especially evident in London. These inter-linkages cut across sectors and regulatory boundaries. Outages can have serious cascading impacts, as demonstrated by the August 2019 power cut or the Kingsway Fire in 2015. It is critical that decision-making around resilience and asset management adequately account for interdependencies. It is not clear that the proposed Network Asset Risk Metric (NARM) facilitates this kind of thinking to the extent required. For instance, does the methodology for determining asset Criticality Index data account for the impact of asset failure beyond the electricity distribution sector alone, e.g. to connected water pumping stations or transport hubs?

The Mayor's London Infrastructure Group of industry CEOs, in which Ofgem participates, has raised the issue of interdependencies as a priority issue to be better understood and addressed, and this urgency is echoed in the National Infrastructure Commission's recent resilience study.¹⁷ The GLA has engaged with London's statutory providers to determine how interdependencies are currently assessed. From this work it is clear that regulatory incentives to think beyond one's own network differ considerably between sectors.

We would encourage Ofgem to develop proposals, potentially in partnership with other regulators, for a consistent approach to assessing network interdependencies. This might be within NARM or a separate process in the investment planning toolbox. We agree with the proposal to account for long-term risks beyond ED2 within the NARM framework.

There is potentially a role for regional devolved authorities such as the GLA to facilitate local cross-sectoral planning amongst infrastructure providers, for instance by hosting platforms for cross-sectoral data sharing (for instance building upon the GLA's Infrastructure Mapping Application) or by convening regular cross-sectoral planning meetings.

OUTQ47

Are there further requirements or expectations that we should be considering for the DNOs?

We agree with the NIC's recommendation for infrastructure operators to develop long-term resilience strategies with regular stress tests of their networks, overseen by regulators. Ofgem should consider options to better incentivise DNOs to enable progress to net zero efficiently, including requiring them to define and justify outcome delivery incentives in their business plans.

¹⁷ <https://www.nic.org.uk/wp-content/uploads/Anticipate-React-Recover-28-May-2020.pdf>

OUTQ48

Do you agree with our proposal for the establishment of a ‘climate resilience’ taskforce or working group, to help DNOs develop strategies for managing the risks of climate change?

Yes. We would encourage conversations beyond the electricity distribution sector alone.

OUTQ53

Do you agree with our proposal to develop a wider resilience measure over the course of RIIO-ED2? If so, what should it cover?

We agree with Ofgem's proposal for a wider resilience measure, although would argue that the aim should be to include this in ED2 itself. The measure should cover an independent assessment of security risks, common model failure risks from co-located assets, flooding (including surface water flooding) and heatwaves. How does Ofgem anticipate this proposal aligning with the NIC's recommendation for the government to publish sectoral resilience standards every five years?

Delivering an environmentally sustainable network**OUTQ57**

Do you think our proposed environmental framework will drive DNOs to deliver an environmentally sustainable network?

While it is important to track DNOs overall Business Carbon Footprints (BCFs), these are complex and difficult to compare across companies in a meaningful way. In order to facilitate a strategic and coordinated approach to reducing network companies' carbon footprints, we would recommend including specific incentives for the priority contributors to company emissions. For instance, taken as a whole, the decarbonisation of transport fleets for utilities across the energy, water and telecoms sectors has the potential to catalyse development of the wider market for low emissions commercial vehicles.

We would like to see explicit proposals for decarbonising company fleets and ensuring they are compliant with London's Ultra Low Emissions Zone. Companies should be funded to work together across sectors to jointly develop the procurement approaches and charging infrastructure needed to achieve this in an efficient way.

Annex 2: Keeping bills low for customers

Uncertainty Mechanisms

COQ38

Are there any other uncertainty mechanisms that we should consider? If so, how should these be designed?

Strategic investment in infrastructure capacity is crucial to delivering on Mayoral and Government ambitions for housing delivery in London, particularly in strategic locations such as the Opportunity Areas outlined in the London Plan. The consultation document rightly focuses on the approach to managing strategic investment but only briefly considers the question of investment of need to enable new development. We recognise the need to avoid gold-plating but must also ensure that the regulatory system does not create an unnecessary brake on housing delivery. Ofgem must ensure that the RIIO-ED2 framework facilitates anticipatory investment on sites of strategic importance, where it can be shown to benefit the consumer overall.

Currently, the system is stacked against strategic investment unless its need can be fully evidenced in advance of the price control. Under ED1, this was achieved in London for Vauxhall, Nine Elms and Battersea, where investment by UKPN for a primary substation was secured upfront through a High Value Project Price Control Deliverable, but this was dependent upon a group connection request from developers already present in the area meaning demand risk was low. In most cases, DNOs cannot meet the burden of evidence required to justify strategic investment in advance, meaning that they must follow the route of charging 100% of the cost of investments in new capacity to the developers requesting it and allowing them to recoup that cost over time as other developments come forward in the area. This implies significant risk to the developers, who are only granted a limited period to recoup their investment through the second comer mechanism.

The drawbacks of the current structure are illustrated by recent experience at the Royal Docks, an Enterprise Zone in East London jointly led by the Mayor of London and Mayor of Newham with potential over the next 25 years for 60,000 jobs and 25,000 homes. Development at the Royal Docks is dependent on new electricity capacity but UKPN have been unwilling to invest in a new 88MVA substation ahead of need because this would entail excessive risk on their part. The GLA is stepping in by providing up to £25 million in funding to build the substation itself, but this is dependent on negotiating a bespoke legal model with the DNO to ensure that the GLA can recoup its investment as development proceeds in the future. This approach is extremely time- and labour-intensive and is not replicable in most instances.

A simpler model is needed whereby DNOs are encouraged to invest strategically at the right time while considering the costs to consumers overall. We would encourage Ofgem to explore the following approach:

- Allow DNOs to identify funding potentially required within ED2 for capacity investments at strategic development sites and include these as pre-defined allowances that are unlocked when the projects are started.
- Incentivise DNOs to invest in strategic works at the correct time by requiring them to identify a pre-determined target level of connections to the new network to be achieved within five years as a Price Control Deliverable output measure.

- Rather than requiring developers to pay for 100% of the investment upfront, allow DNOs to recoup the cost of these investments through ongoing bespoke service charges to connected customers.

Agreeing pre-defined allocations of funding for strategic investments would provide greater visibility and confidence to the market, making it easier for developers to invest in a location in the knowledge that the DNO has funding ring-fenced for providing capacity there. This would be less the case if this funding were approved through a re-opener, for which the outcome would be far less certain.

In line with the NIC's recommendations for regulatory frameworks to better reflect the strategic vision of metro mayors and local government,¹⁸ the GLA and local authorities could potentially play a role in the validation process for unlocking the pre-defined allowances proposed above. The GLA is exploring options for using planning conditions to mandate more regular updating and sharing of development phasing information by developers to strengthen levels of confidence around when development will come forward. This proposal, combined with enhancements to the London Development Database to improve and automate the flow of planning application data from boroughs, will position the GLA well to support the validation process. Where LAEPs have been completed for areas in question these will also provide excellent local evidence to add assurance to the process.

We recognise the risk that this proposed model could stifle competition if the DNO secures funding in advance for delivering a new network in a certain area. One way of resolving this would be to have the DNO, like the ESO, run competitions to determine who can deliver the planned infrastructure most efficiently. As DNO's progressively evolve into DSOs, this would mirror the approach taken by National Grid ESO for ensuring competition in network development at the transmission level.

Increasing Competition

COQ41

Do you agree that our flexibility proposals are sufficient to incentivise DNOs' native competition?

As highlighted above, we welcome both the stated direction of travel, and specific proposals set out by Ofgem. However, it's unclear if the current proposals alone are sufficient to fully incentivise DNOs to support the development of a smart, integrated and flexible system.

The Mayor's FlexLondon programme demonstrated that building in flexibility is challenging, requiring proactive measures from a range of stakeholders (not just the DNO). While DNO flexibility value is a useful contributor, it is not enough in itself to develop strategic flexible demand. This will require a joined up, 'whole system' approach to support the development of smart systems. As a result of limited and fragmented value streams (that are complex to understand and access), many consumers still perceive flexibility not worth doing. This must change, and the current proposals are insufficient to drive this alone.

¹⁸ <https://www.nic.org.uk/wp-content/uploads/NIC-Strategic-Investment-Public-Confidence-October-2019.pdf>