**Ofgem RIIO-3 Team**

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**Greater London Authority (GLA) Response to Ofgem’s Call for Evidence on the Electricity Transmission, Gas Transmission and Gas Distribution Business Plans for RIIO-3**

We welcome the opportunity to provide feedback on the Electricity Transmission, Gas Transmission, and Gas Distribution Business Plans for RIIO-3. Greater London’s key priorities remain the provision of safe and affordable housing, achieving net zero by 2030, while strengthening climate resilience. Ensuring London’s infrastructure networks are fit for the future is critical to the delivery of these priorities.

We recognise the shared ambition across the Business Plans to ensure the infrastructure is in place to support the transformation of our energy system, to keep the costs of infrastructure development as low as possible, while supporting sustainable economic growth.

National Grid Electricity Transmission (NGET) RIIO-T3 Business Plan

We welcome NGET’s continued commitment to ensuring the transmission network reflects Greater London’s infrastructure priorities. We acknowledge NGET’s characterisation of the main drivers of the next price control period. This includes the pace of transition towards net zero, the significant step change in investment needed to deliver this, and the critical need to accelerate customer connections while ensuring more stable energy bills.

*London-focused RIIO-T3 Plan*

NGET’s regionally focused TIIO-T3 plan for London demonstrates a significant and ambitious plan for network investment over the price control period. However, we would wish to see further clarity as to how the proposed investments would support accelerated resolution to network upgrades where demand connections at the distribution level are currently held up by a lack of capacity on the transmission network. A key example of this would be the on-going electricity capacity constraints in west London.

In Summer 2022 the GLA was made aware of capacity constraints facing three west London boroughs – Ealing, Hillingdon, and Hounslow. Developers reported receiving quotes with connection dates up to 2037. A rapid influx of development proposals from large demand customers (particularly data centres) had created capacity constraints on both the distribution and transmission networks in the region. This has had the effect of absorbing most of the remaining electricity capacity in the west London area for the remainder of the decade.

Since the issue arose in 2022, the GLA has worked with SSEN, NGET, NESO, UKPN and affected developers and boroughs to pursue a suite of solutions to mitigate these issues. These solutions have helped to free up capacity in the area in the short term, allowing many stalled housing developments to move forward. While we recognise that significant reforms to the connection process are currently being progressed, it remains the GLA’s view that accelerated network investment is needed to increase capacity at both transmission and distribution level.

While NGET has committed to upgrading the transmission network to support the increased electricity demand in the west London region, these upgrades will take many years to complete. The current timeframe provided us by NGET, to inform our regular update documents to stakeholders on the progress made toward resolving these constraints, shows that the required transmission upgrades will not be complete until 2037. We wish to reiterate the need to accelerate these upgrades and grid reinforcement works required to enable the timely delivery of affordable housing, unlock economic growth, and support decarbonisation in the affected areas of west London.

We note the significant future demand on London’s transmission network expected from data centres and other major energy users over the next price control period. London is a European leader in data centre development, providing world-leading infrastructure that hosts our growing digital sectors. However, as noted with the example of the west London capacity constraints, we are aware of the risks that the sudden and unexpected growth in major energy users such as data centres can have on available capacity to support broader growth priorities including housing delivery. It is therefore critical that the Business Plan robustly forecasts data centre growth and provides the flexibility to respond at pace to prevent any further future capacity constraints in London.

The GLA would caveat the Business Plan’s characterisation that London does not have the space for large-scale renewable energy generation projects. The GLA’s London Solar Opportunity Map estimates that there are over 1.8 million buildings with the potential for solar PV roof installations in London. The Mayor has established a target of having 1GW of solar capacity in place by 2030. We would therefore wish to ensure that this provision is appropriately considered within the Business Plan.

We welcome the Business Plan’s commitment to working with local partners, including London boroughs, on the proposed upgrade and re-size of the Barking substation. We welcome NGET’s early and continued collaboration in ensuring these proposals protect land earmarked within the London Riverside Opportunity Area for the delivery of new homes. We wish to see further similar and early engagement with NGET on the Business Plan’s other proposed investments to help support holistic solutions to infrastructure delivery.

*Consumer Outcome: Infrastructure fit for a low-cost transition to net zero*

The GLA supports NGET’s objective to invest at pace and scale to deliver a step change in capacity across the transmission system. The emphasis on future-proofing the network with strategic capacity and flexibility for the longer term is also welcomed.

The need to further accelerate connections for customers is critical to ensuring London’s growth and decarbonisation, and we support the primacy of this objective within the Business Plan. It is noted that the commitments emphasise support to the Government’s new Growth Driving Sectors. However, we would wish to reiterate the need to see clearer commitments to accelerating transmission reinforcements and upgrades where this is creating downstream delays to demand customers at the distribution level. This is again demonstrated by the west London capacity constraints and its continued impact on housing delivery, decarbonisation, and local economic growth. We would highlight the need for the Business Plan to accommodate sufficient flexibility to ensure the connection of more energy intensive uses such as data centres is facilitated in a way that does not adversely impact the delivery of London’s broader growth priorities.

NGET’s proposed programmatic approach which seeks to help minimise the time it takes to add new connection capacity to the system includes several proposals that we would welcome. NGET’s proposal to adopt a more standardised approach to substation design and engage in a more anticipatory process to land assembly is sensible. We would welcome the opportunities these provide for earlier engagement and collaboration between NGET, the GLA, and London boroughs on significant infrastructure delivery projects. Clearer guidance on the design and development process, site selection, and land assembly for NGET’s infrastructure assets would allow local planning authorities to better consider future infrastructure needs in a more holistic way. We would welcome opportunities for earlier engagement on whole-site strategies for existing network infrastructure assets undergoing investment. This includes allowing for greater flexibility and consideration of the role of in land-swaps and other land assembly mechanisms to ensure network investment is holistic and better considers broader local needs.

*Consumer Outcome: Secure and resilient*

We note NGET’s commitment to creating a long-term cabling strategy for west London within the next price period. We would welcome NGET’s early and continued engagement on this process.

The case of electricity constraints in west London demonstrates that strategic investment needs to be taken through an ongoing, sustainable, planned approach to grid reinforcement that considers not just investment but also supply chains, resourcing and skills, potential network outages, and other factors. As demand on the grid increases there is a need to ensure that investment is in place in the mid-2020s to prepare for the peak in demand that is expected in the 2030s. We would be keen to understand how this cabling strategy would support resolution of the ongoing west London capacity constraints in the longer-term.

*Consumer Outcome: Value for Money*

NGET’s commitment to supporting economic growth pays particular attention to accelerating connections for major energy users. This includes the use of uncertainty mechanisms under the current RIIO-T2 to support data centres connecting in west London. We wish to see a similar level of commitment to accelerating the necessary transmission upgrades needed to resolve the broader west London capacity constraints given its continuing impact on wider growth priorities in the area.

It is crucial for the GLA, London boroughs, and customers to have access to open and accurate data to better inform planning and decision making. To this end, we welcome NGET’s commitments around whole-system collaboration on data transparency. One of the primary ways network data can be used is in Local Area Energy Planning (LAEPs). The GLA is currently delivering sub-regional (Phase 1) LAEPs across London’s four sub-regions, supporting a whole-system approach. The GLA has also developed a LAEP DataHub which provides a common evidence base and data framework for local authorities to take forward more detailed borough-level (Phase 2) LAEPs. As LAEP modelling becomes more detailed, the granularity, currency and accuracy of data becomes more important – as this will be used to plan infrastructure requirements and develop net zero project connection pipelines.

To better support this, we would encourage NGET to consider how it can provide further data on direct demand connections such as data centres and other major energy user proposals to inform the GLAs and Local Authority planning processes, as well as better inform customer investment decisions. This will be key in enabling robust evidence that would allow local authorities to appropriately address recent changes to the National Planning Policy Framework requiring local plans and decisions to further consider data centres and other major energy user developments. We would also welcome NGET making better use of London-level data such as energy demand forecasts developed as part of the LAEP process, London Plan, and associated local data to inform investment and network planning processes. It is noted that such local input is not always effectively captured by DNO’s own network planning work, which is to the detriment of upwards planning at the transmission level. While it is appreciated that the RESP (Regional Energy Strategic Plans) will provide a more holistic view in the longer term, we believe that NGET should take a more proactive stance in integrating more local level datasets into its investment and network planning activity in the interim.

The GLA supports NGET’s proposal for two new ODI incentives as part of RIIO-ET3; the Innovative Delivery Incentive and the Stretching Outcome Attainment Incentive. Both have the potential to encourage decisions that accelerate the delivery of the infrastructure works needed to support the transition to net zero. We believe both incentives could create opportunities for establishing new and innovative forms of collaboration between the GLA, London boroughs and National Grid in accelerating the delivery of new infrastructure assets to support London’s growth and decarbonisation priorities. We would welcome further collaboration with NGET on these opportunities.

The GLA is concurrently responding to Ofgem’s consultation on the Connections End-to-End Review, which seeks input on a new incentive structure to enhance the timeliness and quality of connections offered by Transmission Operators (TOs). Of the options presented, the GLA’s preferred option is to incentivise each TO to increase their Supergrid Transformer Capacity (SGT) based on projected capacity with a regional breakdown. As we electrify our energy system, it is expected that demand on the electricity network will increase significantly across all of the UK, especially into the 2030s. However, our experience in west London illustrates that regional needs will vary and that local contexts should be considered by TOs to ensure that the necessary investments in the electricity network are made at the right time and in the right areas. In west London, there has been a sudden increase in the number of major energy users such as data centres who, due to their large energy demand, are seeking a connection to the transmission network. However, the subsequent capacity constraints have primarily impacted developments seeking a demand connection to the distribution network. We would therefore seek reassurance that whichever incentive structure is pursued will generate meaningful and timely benefits to demand connection customers in west London who are held up by constraints on the transmission network.

We acknowledge Ofgem’s identified risks with this proposed approach, namely that of the lack of historical data on the relationship between connections activity and SGT capacity. As part of the collaborative efforts that the GLA has led with London Boroughs in developing LAEPs, this process has generated a robust evidence base for long-term investment in the electricity network based on local needs. We are committed to working with Ofgem, NGET, and Distribution Network Operators in sharing data that can help inform the requirements for SGT capacity.

Cadent and SGN Gas Distribution Business Plans for RIIO-3

Repeated streetworks create significant levels of disruption on London’s residents, road network, economy, and environment. The Mayor welcomes efforts to reduce disruption associated with their mains rehabilitation programmes by deploying the Dig-Once Approach. The GLA supports both the Cadent and SGN’s proposals to retain the Collaborative Streetworks financial output delivery incentive within RIIO-3.

Gas distribution networks’ (GDN) mains rehabilitation programmes play an important part in ensuring Tier 1, 2 and 3 assets are maintained or replaced. Looking forward, GDNs have identified a need to address the safety condition of a significant proportion of their gas assets. Within the London area, a large asset base will need to be rehabilitated and a rise in the disruption levels associated with those streetworks is therefore expected. This is primarily due to two factors:

* the remaining T1 assets that have not been rehabilitated may have been left stranded due to delivery challenges, with a number of assets being in strategic locations, which would entail higher than usual disruption;
* remediation of the Tier 2 and 3 asset base will entail more disruptive construction methodologies, due to the depth and size of the assets in question.

The collaborative streetworks incentive, which has operated across the current price control period (GD2), has demonstrated significant results. There have been important benefits to customers, efficiency gains and value for money improvements. Preliminary data available across GD2 Years 1-3 indicates that over 1,012 days of disruption have been saved, equating to £5.03 million in resident wellbeing. This Output Delivery Incentive (ODI) has underpinned the scaling of collaborative delivery in London, with these efforts providing a blueprint of how bespoke, innovative regulation can empower infrastructure providers to embed social, economic, and environmental priorities as part of their capital delivery operations.

The GLA recognises that there remain several blockers to collaborative delivery – from Construction (Design and Management) Regulations (CDM), and liability, to technical barriers and delivery pressures. In the Greater London area, we have seen that the ODI plays a key role in fostering collaborative streetworks. To date, we have seen the positive impacts of the bespoke collaborative streetworks incentive across GD2. There has been a dramatic increase in the number of collaborative streetwork projects being pursued, with over 46 schemes having been delivered across GD2 Years 1-3. In turn, this has led to improved resident wellbeing and social value for Londoners.

Encouragingly, the GLA has seen early signs of wider behaviour change. Indeed, the presence of this ODI has driven organisation changes, with positive impacts on GDNs’ asset management strategies starting to take shape. If these changes – GDNs hiring ‘Collaboration Specialists’, leveraging speculative data when prioritising assets for replacement, aligning works with other sectors’ utilities – are given enough time to reach maturity, the GLA expects significant benefits for Londoners and customers alike.

Collaborative efforts are key to driving cross-sector efficiency. Critically, the GLA has been working with other sectors to introduce similar ODIs. Over the last few years, the GLA has engaged regulator (Ofgem and Ofwat) to support the introduction of an ODI for UKPN and Thames Water’s business plans. Due to the misalignment of regulated periods across the gas, power and water sectors, the full impacts of a cross-sector incentive are only expected to be visible in the medium term. In order to maximise the Collaborative Streetworks Incentive and ensure consistency across sectors, the GLA supports Cadent and SGN’s plans to retain this ODI across GD3.

Lastly, the GLA would welcome the chance to discuss a few minor amendments to the way the incentive could be applied in GD3, including governance and oversight.