



10th May 2023

Electricity network constraints – impact on net zero delivery

We are writing as members of the Zero Carbon Oxford Partnership (ZCOP), to share our understanding of key issues and request a meeting to discuss the impact of local electricity grid constraints on the delivery of decarbonisation projects and outline the necessary key actions to enable faster delivery at a local level.

ZCOP brings together Oxford's most influential organisations including Oxford Brookes University and University of Oxford, the health trusts, the further education colleges, both City and County Councils and large businesses such as Lucy Group, SSEN, BMW, LandSec and Unipart. The purpose of the Partnership is to work collaboratively to support the city in its journey to net zero carbon emissions by 2040. Together we developed the Zero Carbon Oxford Roadmap and Action Plan which sets out an ambitious pathway to net zero carbon emissions for the city, including the need for wide-scale electrification of transport and heat, with the installation of 15,984 heat pumps on residential properties by 2030 and 8,341 off street EV chargers.

Oxford is a pioneering city for net zero, with a vibrant innovation ecosystem around carbon and energy. It hosted two of the four UK Smart Energy Demonstrators; Project LEO and Energy Superhub Oxford. Oxford is a Zero Emission Bus Regional Area (ZEBRA) as well as a UKRI-funded "Pathfinder Place" and, through a partnership including several ZCOP members, is developing whole systems and placed-based solutions to decarbonise homes and businesses. The city is also home to the Low Carbon hub, a community energy business that now owns £25m of renewable energy assets whose profits are used for the benefit of Oxfordshire's residents.

This local expertise and innovation provides detailed insights into - and deep understanding of - the barriers posed by local grid constraints and the necessary solutions. Despite local innovation and partnership, there are significant delays to renewable energy generation projects, heat pump installations, electricity storage solutions and electric vehicle charger rollout across the city due to grid constraints. This is holding back delivery of decarbonisation projects and the associated local investment, economic growth and skills development, which will only worsen without urgent government action.

We would like to request a meeting to discuss the following key issues with you:

- **DNOs are limited in their ability to provide additional capacity ahead of a planning applications and connection requests, causing delays to decarbonisation projects due to connection queues at Distribution and Transmission levels.** Future regulatory price control (RIIO) determinations should enable anticipatory investment informed by sound local evidence, for example Local Area Energy Plans (LAEP), developed with businesses and local authorities.
- Project LEO has highlighted that while **LAEPs offer the potential to unlock significant local decarbonisation, a lack of resourcing within local authorities and unclear governance could hold back progress.** Roles, responsibilities and legal status for LAEP delivery (beyond the DNO) should be clarified, with necessary resourcing for delivery especially within Local Authorities, who are vital for delivery but currently lack the mandate, resource and hence capability to engage effectively (outside innovation projects). Guidance is needed from

government to determine the scale and mechanism to engage actors across the energy system to deliver a coordinated and strategic approach to LAEPs.

- **To enable LAEPs and strategic local delivery of decarbonisation projects, there is a need for investment in data and digital capability.** Greater investment is needed in data and digital capability for electricity networks made available to all interested local parties to underpin LAEPs and provide information on grid constraints, the associated cost of upgrades and likely timelines.
- **Project LEO demonstrated that a combination of energy flexibility and energy efficiency is vital to reduce the need for network reinforcement, but this is held back by a range of technical, commercial, social and regulatory challenges.** A range of policy and regulatory changes combined with investment in data and digital capabilities are needed to unlock the full potential of energy flexibility, outlined in Project LEO's Final Report.
- Local Authorities are experts in their local area and are skilled at developing policies based on its needs: Local Investment Plans (LIPs) set out vision, investment requirements and funding mechanisms to support growth; Net Zero target and policies, such as Oxford's own 2040 target and the ZCOP Roadmap and Action Plan, contain locally informed, science-backed routes to local Net Zero. **Any change in local energy system governance should therefore be implemented in a way that accommodates and supports Local Authority targets, policies and investment plans, to achieve optimal outcomes at the most affordable costs.**

We would welcome a meeting with you to discuss these issues, drawing on our collective experience of delivering innovative projects and community energy schemes. Oxford has the potential to be one of the first net zero cities in the UK and we are actively working to rapidly decarbonise the city. However, this progress is dependent on urgent national government action to unblock network capacity constraints to allow accelerated decarbonisation.

We are also setting out our concerns to the Department for Energy Security and Net Zero via a letter.

Yours Sincerely,

