How subregional LAEP output informed UK Power Networks' network investment plan

The UK has set a legally binding target to reach net zero by 2050 along with ambitions to decarbonise the energy grid by 2030 with a mission to make the UK a 'clean energy superpower'.

This energy transition requires us to think in new ways, being more dynamic and agile in line with changing technological and social conditions and working in much stronger collaboration with others. To respond to this UK Power Networks established the UK's <u>first Distribution System Operator (DSO)</u>.

During this period of immense change in the energy sector, there are significant opportunities for London Boroughs to lead and shape their local energy system. Local government has a vital role to play in shaping local infrastructure that works for their residents and businesses while unlocking sustainable growth and delivering Net Zero.

As London heads towards Net Zero, London Boroughs will do so at different speeds, at different deployment volumes, and using a range of low carbon technologies (LCTs) such as electric vehicles (EV), heat pumps and solar PV. UK Power Networks DSO is here to facilitate these plans and provide, at lowest cost, enough electricity capacity across London to facilitate local growth and decarbonisation.

To do this UK Power Networks dedicated DSO Local Net Zero team is here to support and proactively engage and support the Greater London Authority's (GLA) Subregional Local Area Energy Plan (LAEP) programme and each London Boroughs LAEP activities. The team opened new ways for you to share plans and they manage the LAEP framework to process plans to enhance the forecasts used to shape network investments with your local intelligence, ensuring sufficient electricity capacity when and where it is needed. You can find out about all the available UK Power Networks DSO services for London Boroughs at: Your Local Net Zero Hub

UK Power Networks DSO and GLA have collaborated to ensure a <u>"Share Once"</u> approach for London Boroughs to share forecasts of low carbon technologies like electric vehicles and heat pumps and for growth like new homes, community facilities and businesses.

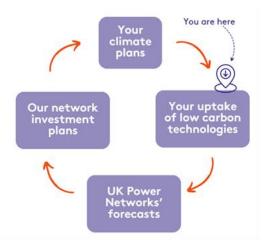


Figure 1: UK Power Networks' forecasts update with your climate plans

London Boroughs have the power to shape our network investment plans by sharing their latest growth and decarbonisation plans through the LAEP Framework. Plans can be shared all year round, there are two key annual windows (April and September), and from this process, it helps to ensure there is sufficient electrical capacity in your local area in long term, facilitating energy transition to Net Zero and delivering benefits to local communities.

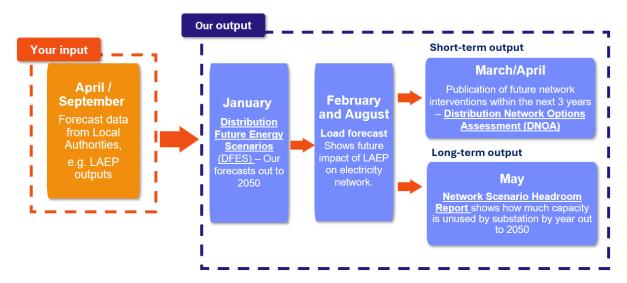


Figure 2: Timeline to influence UK Power Networks' network planning with local intelligence

To enable these local ambitions the DSO Local Net Zero team work with London Boroughs using the LAEP framework, ensuring that we can be confident before any forecast from local authorities are used to adjust our annually updated <u>Distribution Future Energy Scenarios (DFES)</u> and subsequent network planning forecasts. By working together, we are facilitating local Net Zero Plans and investing with confidence.

For example from September 2024, three Subregional LAEP Phase 1 (West London, South London and Central, Inner East and North London), with support from GLA, London Councils and London Boroughs, plans have been shared and processed through the LAEP Support Framework, and have shaped our <u>DFES 2025</u> published earlier this year.

UK Power Networks' annually refreshed DFES is used to inform our wider network planning activities including load forecasting, network development plans and <u>Distribution Network</u> Options Assessment (DNOA) process. For example, we publish <u>Network Scenario Headroom</u> Reports that indicate available substation capacity for demand and generation in the DFES projections through to 2050, and DNOA reports to provide transparency about our decisions to meet future capacity needs with lowest overall cost solutions. The headroom reports also show where we expect to need flexible solutions across our network on a site-by-site basis.

DFES 2025 has been enhanced with local data from LAEPs across 32 areas to inform UK Power Networks' strategic network plans and have accelerated network investment in 70 substations. In 2025, forecasts for East London Subregional LAEP has informed DFES 2026, which will be published early next year.