



Liverpool City Region
has worked to electrify
Gillmoor depot ahead
of bus franchising



GRID STRATEGY KEY TO BUS ELECTRIFICATION

Vehicle procurement is important to fleet electrification – **but so is sourcing power**



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In the context of growing awareness of the transformation needed in the UK's electricity grid to keep up with the pace of transport electrification, it was encouraging to read about progress by Aurora Utilities in upgrading a large number of Stagecoach's depots.

Aurora confirmed that there have been upgrades to grid connections to energise the operator's depots across the UK from Aldershot to Arbroath, with 17 locations throughout the country now live. Cumulatively, these network upgrades are expected to enable capacity for around 1,330 new electric buses – equivalent to 16% of Stagecoach's UK fleet.

That seems a significant development, not only because it involves the largest of the UK's 'big five' operators (responsible for approaching a quarter of the UK market).

It is also significant because the conversation around bus decarbonisation has so far largely been focused around vehicle procurement, and this reminds us that the binding constraint on electrification operations is shifting upstream – to the grid connections that make depot charging possible at all.

As an Independent Distribution Network Operator (IDNO), Aurora adopts assets and operates new grid connections itself, on behalf of customers, rather than requiring them to route everything through the incumbent DNO.

IDNOs provide a potentially faster, more flexible delivery of grid connections and a funding source to finance assets as an alternative to the regionally monopolised DNOs.

The shake-up of the UK's power delivery system may be helping to accelerate developments otherwise.

Incumbent DNOs are moving, too; for example, in June the Liverpool City Region Combined Authority completed

electrification works at Gillmoor depot, upgrading grid connections in partnership with SP Energy Networks (the licenced DNO for the area), VEV, Stagecoach and Liverpool City Council to support more than 100 new publicly-owned electric buses ahead of the region's bus franchising rollout.

Mayor of the Liverpool City Region Steve Rotherham framed infrastructure readiness for the Gillmoor fleet as central to franchising success.

These depot electrification projects show that operators have a wide range of solutions to tackle the challenge of grid connections. IDNOs like Aurora can offer operators a faster, self-managed route to capacity, while DNOs are successfully partnering directly with Combined Authorities on publicly-owned infrastructure tied to franchising timetables.

These are encouraging signs that the market is maturing and that we're finding ways around the grid connection 'bottleneck'.

Not all situations are straightforward, though.

At National Express Bus's Yardley Wood depot in Birmingham, grid constraints caused challenges until a battery storage installation enabled a workaround.

In some locations, Stagecoach is also hedging its bets against grid limitations and rising energy costs by actively investing in on-site solar generation as well as battery storage.

For operators considering their next moves, it is becoming clearer that successful electrification programmes now pair a grid connection strategy – whether IDNO-led or DNO-partnered – with on-site generation and storage, rather than treating capacity as a one-off procurement task.

It's also becoming increasingly apparent that in the context of fleet electrification, grid strategy now deserves the same board-level attention as vehicle procurement itself.

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