

Fast tracking rural electricity network upgrade

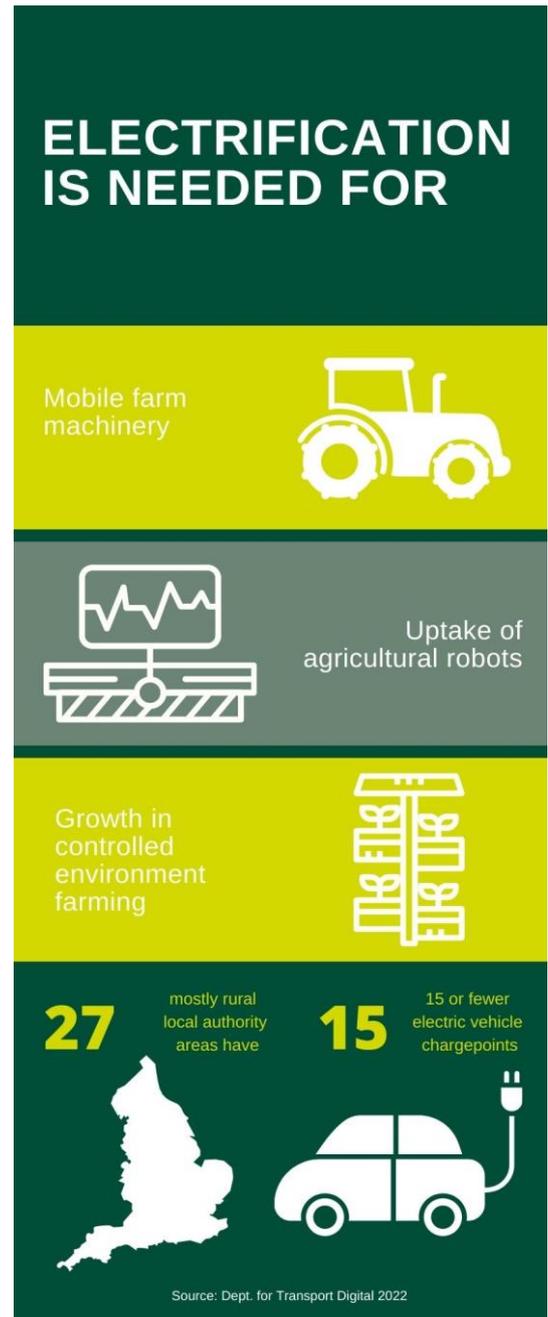
Why is fast track upgrading of the rural electric network important to agricultural productivity?

Increased electrification is a key driver of new and more efficient technology and farming systems in agriculture, enhancing productivity growth through the improved precision and efficiency delivered by indoor production systems, robotics and electric agricultural machinery. This is crucial for the long term viability and environmental sustainability of farming businesses.

Upgrading the rural electric network is also essential for the wider rural economy and diversified farm enterprises such as farm shops, tourism and business centres.

What is currently not working?

- Poor understanding of rural needs by Distribution Network Operators and no incentive to deliver cost effective solutions.
- Disproportionate costs for upgrading electrical load and generation connections to rural businesses resulting in new projects and investment becoming unviable.
- Delays in rollout of upgrades in rural areas and need to include innovative solutions such as active network management, flexible connection offers and battery storage.
- Lack of investment in rural electric vehicle charging points.



Recommendations – fast tracking rural electric network upgrade

- Government to require a clear plan for rural electricity grid investment ahead of need agreed by Distribution Network Operators.
- Development of a fair cost model for rural connections agreed with Distribution Network Operators and support for greater collaboration.
- Funding for a series of demonstration projects, for example:
 - Battery storage to buffer short-term electrical loads like on-farm machinery charging and indoor production systems
 - Public-access electric vehicle (EV) charging facilities
- Office for Zero Emission Vehicles (OZEV) to extend plug-in grants for farm purchase of electric quadbikes and utility vehicles.
- Investment and attractive grants for investment in rural Electric Vehicle charging points at appropriate locations such as community EV hubs on farms.

What does good look like?

The economy is turning electric and rural businesses should be at the front of this change. The goal is that all rural businesses have the appropriate electric grid capacity for their current and future needs at a fair costs and timescale. Farm investment in new buildings, equipment, technology, renewable energy should not be unviable due to electric upgrade charges. This will enable electrification of machinery fleets, growth of automation and robotics, and controlled environment farming.

Rural areas should have enough EV charging points to ensure no restrictions on travel and transport during the transition to electric vehicles.

What happens if nothing changes?

Productivity growth in farming will be left behind in the ‘green recovery’, and the rural-urban divide will widen, damaging the plans for a ‘just transition’ to a low carbon economy. At worst, there could be a debilitating slowdown in investments in agricultural production and non-food business such as rural workspaces, retail and tourism.

Glossary

Connection offer	Heads of Terms of a contract for the DNO to provide a new or reinforced electricity connection for generation or supply of electricity
Distribution Network Operator (DNO)	A company licensed to distribute electricity in the UK, owning and operating the local network that brings electricity from the national transmission network to the customer
Electric Vehicle (EV)	Domestic, commercial or non-road vehicle powered by electric only
Plug-in Hybrid electric vehicle (PHEV)	A vehicle that can use electric battery power but also has a conventional petrol or diesel engine
Vehicle to Grid (V2G)	The use of EVs or PHEVs to provide electric power management services to the electricity network when not in use and connected to a charger.

