

Data Gathering using Drones for Asset Inspection

ID: EIP147

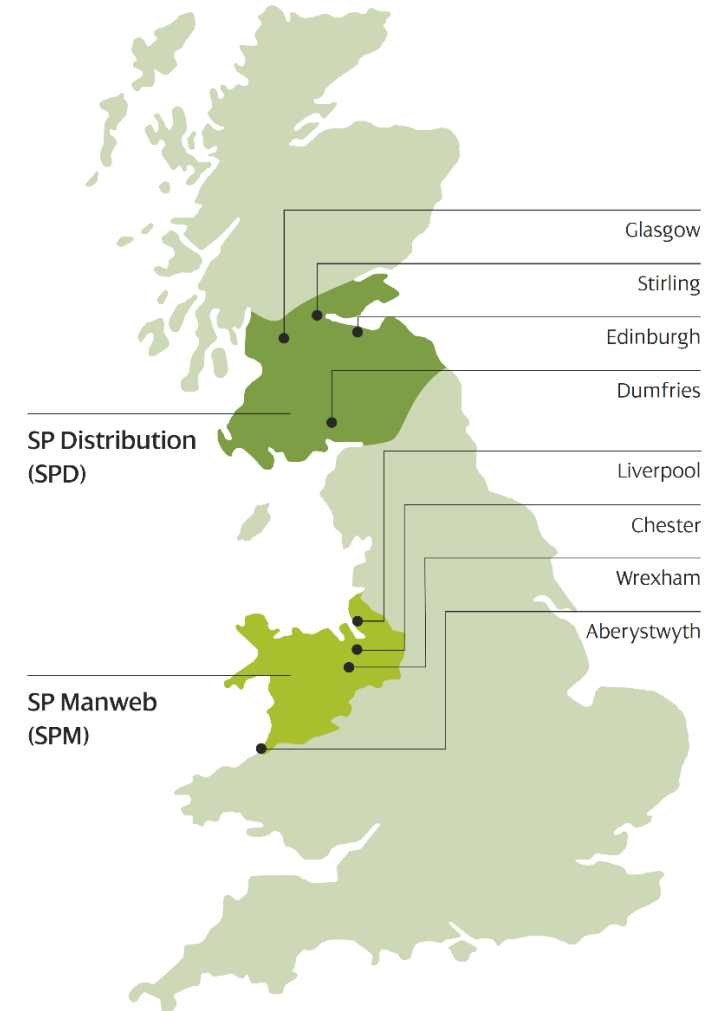
Parham Momeni

14/02/2025

We own and operate two regulated distribution networks, SP Distribution plc (SPD) and SP Manweb plc (SPM). We are the only DNO group to operate across all three nations of GB – Scotland, England and Wales. We also own and operate one transmission network in Central and Southern Scotland, SP Transmission plc (SPT)

Our business is crucial to the delivery of the UK's Net Zero targets and the transition to a more sustainable future

We are committed to making this happen and placing our customers and stakeholders at the heart of this journey.



- We have over 150 substations in SPT to supply power to our customers, therefore it is imperative for us to improve the efficiency of our operations when it comes to asset inspections
- SPT are exploring new ways to incorporate drones in their routine asset inspections, particularly for OHLs

- Currently there isn't an appropriate off-the-shelf autonomous drone solution to inspect inside primary substations, due to the navigation complexity and regulatory barriers.
- The spatial constraints within substations can limit the possible angles for the drones to capture images and navigate around the asset.
- Beyond sight regulations are arriving, but still not properly established.

- A developed autonomous solution that could navigate inside a substation and capture images with minimal instructions from site engineers. The navigation software should ensure that the drones capture data from optimal angles while keeping within safe distances from critical assets.
- The drone solution must demonstrate that it complies with SPEN site safety policies.
- The solution must incorporate ML/AI to automatically flag potential faults to our site engineers.
- A set of recommendations for how the drones would be incorporated in our routine inspections effectively and safely.

Key Contacts

- Luis de la Barba – Senior Asset Management Engineer
luis.delabarba@spenergynetworks.co.uk
- Ahmed Salama – Senior Innovation Engineer
asalama@spenergynetworks.co.uk

