Electric Grid Tower Inspections

Greener & 35% Cheaper

than traditional helicopters used for inspections

AT A GLANCE

DETAILS

Company: National Grid
Operator: Sees.AI
Location: UK
Industry: Electric Grid
Activity type: Asset inspection and Surveying

BENEFITS

- 35% cost reduction in powerline inspections
- Environmentally friendly and improved quality of inspections
- Much safer than traditional methods as personnel are not in the air flying a few meters away from active powerlines.

ISSUE

Grid operators are facing unprecedented pressures from things like the electrification of transportation, electrified heating systems and new demand to compute AI. The national grid looks to put £60 billion into upgrading their network including 50,000km of reconductoring in the UK. All this infrastructure requires inspection and surveying to ensure safety and compliance. Traditional methods of powerline inspection use an £8 million helicopter, with a £2500 flight/hour cost and a crew of 2-3 onboard. The helicopter has to fly close enough to the power lines to collect the relevant data which poses a safety risk and high CO2 emissions. This method requires significant human involvement, which can lead to inefficiencies, higher costs, and increased risk to personnel.

SOLUTION

Sees.ai has developed a drone-based platform that automates the process of industrial inspections and surveys. The system allows for remote operation, reducing the need for on-site personnel and enhancing safety. With the hardware costs of £110,000, this has major cost savings from day one. Sees.AI's drones can inspect up to 50 towers per hour compared to a helicopter's maximum of 10 towers per hour for close inspections. This switch to drones not only increased the number of inspections conducted per hour but also provided more valuable data with lower risk and zero emissions.

BENEFITS

Cost Savings
By reducing the need for manual labour and minimising downtime, companies can save on operational costs.

Improved Safety
By replacing the hazard of crew members in a helicopter to a remotely piloted drone, the inspection operation can impactfully reduce the risk to life and property.

CO2 Benefits
Fully electric drones have zero emissions (Scope 1) in comparison to traditional ICE engine helicopters.

ARPAS-UK The UK Drone Association

sees.ai