

**Electricity
Transmission**

nationalgrid

Engineering and Consultancy Solutions

Overhead Line Condition Monitoring (surveys by helicopter)



Who for

If you are a business owner in the power industry, you may require a specialist service from our Helicopter Unit to provide asset quality insight.

Here at National Grid, we combine our technical engineering knowledge and the latest thermal and high definition equipment to provide customers with in-depth asset quality insight. Our asset quality assessments offer unique insight and evidence.

Why choose National Grid

- **In-depth analysis:** We will provide a unique analysis of your assets' condition, complete with a review and set of recommendations.
- **Benefit from top of the class** Airbus Helicopters' Twin Squirrel and the Bell 429. Both possess excellent performance, safety margins, reliability and operate in most weather conditions in the UK.
- **Cost-saving:** We use Wescam's highly-acclaimed MX10 high-definition, electro-optic and infra-red sensor package. The equipment allows us to detect the minor asset imperfections and provide detailed video evidence.
- **We pride ourselves on precision** by using high definition SLR to take 50-megapixel images of steelwork, fittings and other specific components as required to provide an in-depth analysis of the asset.

- **Our experts** will consult you on a repair and refurbishment schedule.
- **Optimise your time:** No hassle, fast and efficient surveys.
- **Working with you all the way:** Asset team experts will be available on hand to provide detailed analysis.

Our solution

We offer two survey options to suit your needs:

Thermal Surveys:

- Identify thermal contrast in similar components – this can often be the precursor to equipment failure.
- Identify high resistance joints before joint failure.
- Identify conductor problems, hot tower footings and earth wire continuity issues.
- Highlight transformer, switchgear and bus bar problems where components show dissimilar hotspots (or cold spots where equipment has failed).

High Definition Condition Assessments:

- Provide detailed condition assessment of towers, fittings and ancillary equipment including all spacers, conductors, insulators, joints, repairs, bonds, shoes, hangers, bolts, washers, split pins, and earth wire fittings.
- High definition photography of steelwork that emphasises areas in need of painting and/or steelwork repair.
- High definition condition assessment of overhead gantries and substation equipment.
- Different surveys to monitor overhead lines and substations, including High Definition Condition Assessments and Thermal Survey techniques.
- The results of both types of surveys are available to you through high definition imagery and summary reports.*

*Extra costs apply

Engineering and Consultancy Solutions

Tel: +44 (0)800 7839 228

Email: ecs@nationalgrid.com

Website: nationalgridet.com/ecs