
Vegetation Management and the Challenge of ESQCR



An industry opinion by
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Some might think that controlling vegetation that gets too close to a power line is easily solved by cutting the offending trees down with a chain saw. However, when one considers that the electricity companies in the UK collectively have 170,000 km of High Voltage and 68,000km of Low Voltage distribution lines to inspect and maintain, tree clearance becomes a massive logistical challenge – especially when dealing with a perennial problem that is quite literally growing in front of your eyes!

New legislation requires a fundamental rethink

Power companies have always had the duty of maintaining a safe distance between any overhead line and trees. They use industry standards to demonstrate compliance and have been given legal powers to remove trees, even against the express wishes of the tree owner. Recent legislation has been introduced, the Electricity Safety, Quality and Continuity Regulations (ESQCR); still aimed at protecting the general public and consumers from danger, but now adding the duty of power reliability. Current statistics show that tree contact is responsible for up to 20% of all power outages. This addition to the Regulations is designed to lessen the impact of consumer power disruption brought about by trees coming in contact with power lines.



An increase in vegetation management activities by 30%

The cost to the industry in maintaining line safety clearance from encroaching vegetation is significant by any measure. Ofgem, the industry regulator responsible for setting each company's allowances, recognises the scale of the expenditure needed by the industry if it is to discharge its legal duties; £53.8m per annum for vegetation management in this control period, up from £40m per annum in the previous one. However, it has been recognised that even this high level of expenditure will fall well short of that demanded by ESQCR compliance.

The Department of Trade and Industry in its Full Regulatory Impact Assessment, dated 7 June 2006, estimated that companies will need to spend an additional £17m per annum to comply with the new ESQCR Regulations – a 30% increase. The true costs will not be known until all the companies have assessed their current situation against the new Regulatory demands and have agreed an additional allowance with Ofgem; something that is unlikely to be completed until well into 2009.

The certainties

There may be some uncertainty about the final outcome, but there are things that are already known and must be addressed now by all the companies with statutory duties under ESQCR:

- the Regulations will come into force on 31 January 2009
- to meet the statutory duties, even with an agreed funding allowance from Ofgem, the industry must increase its capacity to cut trees by as much as 30%, perhaps even more in some cases.

So what is likely to change?

Historically, each individual company's approach to vegetation management has varied depending on the extent of the tree density, the resources available to them and their existing management systems. Even so, privately, most companies will admit that it is a struggle to keep on top of their existing obligations, not because of a lack of will or available funding, but vegetation management is difficult and complex: cutting down the tree is the easy part! The 30% increase needs companies to rethink their vegetation management strategy, especially the system and processes they adopt to deliver that strategy. In doing so they need to address the following:

- **frequency of site visits will increase** – best estimate is that a typical five year cycle will have to be reduced to three years.
- **land owner agreement numbers will increase** – discussion and agreements with landowners are both time consuming and costly. Although companies do have legal powers it is perhaps significant that there have been only three formal hearings held since the Electricity Act came into force in 1989.
- **Contractor performance management must improve** – the duty holder under the ESQCR has to demonstrate that standards have been set and are being maintained, that programmes are up to date and that actions are followed through in a consistent and timely manner.
- **Knowledge of site information must improve** – accurate site information is vital if the management is to be effective and efficient. There is a need to capture all relevant data, including tree species, the tree density and the surrounding environment and land use.
- **Relationships with all Stakeholders must improve** – poor vegetation management affects the relationship with others involved such as the public and other bodies responsible for the land use and surrounding environment.





The Solution

The Vegetation Management solution developed and introduced into Scottish Power by Sigma Seven has a proven track record when it comes to addressing and solving all of these issues. Sigma Seven's "point of action" application uses the field map to manage the end-to-end workflow needed for effective and efficient vegetation management, allowing the user quick and easy access to the map and associated data by:

- selection of the lines and land areas to be surveyed;
- selection of the preferred contractor to carry out the field survey;
- the on-site capture of all the required data, including supporting media capture such as photographs and marked up sketches;
- on-site permissions management, with consents accessed and completed in a single visit
- detailed recording of all the work, and
- management of invoice requests.

This single integrated solution has been proven to increase capacity whilst reducing costs; ensuring that the work is managed in a way that can demonstrate compliance with even the most challenging of standards and procedures. If you are reviewing your approach to ESQCR and vegetation management and would like to arrange a demonstration of Sigma Seven's Vegetation Management solution, check out the case study on our web site at www.sigmaseven.co.uk and call Donald McGarrie on 0131 445 5878 or send an email to info@sigmaseven.co.uk


Scottish Power Energy Networks: Vegetation Management
Consent Report


Consent

Dear Sir/Madam,

We are carrying out tree surgery work in the vicinity of overhead power lines on behalf of ScottishPower, in order to improve both public safety and security of supply. We have carried out a survey of the power lines on or near your property and have identified the following work, which would be carried out at no cost to yourself:

General Information

Patrol Number : SP10425	Consent Number : 1
Refusal : No	Tree Work Date : 2007-10-26
Reference : bc946a76-9104-463c-a67a-d1e49269626f	

Site Number	Udb	Tree Species	Trees (Num)	Within Falling Dist.	Risk Damage
2 (Vicinity)	10726000	Alder	0	No	Medium

Additional Information & Clearance Details

Tree Preservation Order
 Conservation Area
 National Nature Reserve
 Site of Special Scientific Interest
 Ancient Woodland
 Other

Other Requirements :

Work Required : Site 2: Top trees to hedge height for a 4-year clearance from LV overhead line conductors

Restricted Cut :

Clearance Requirements : Site 2: Eco-pile nearby.

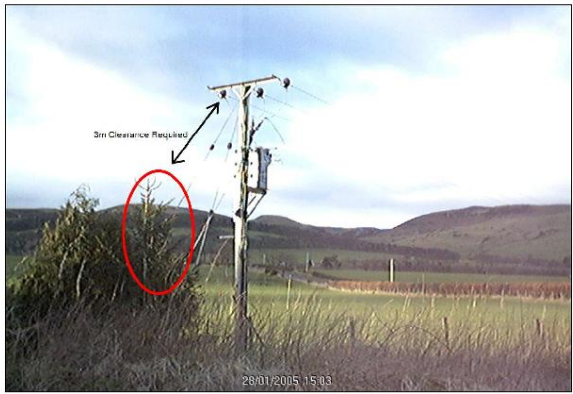
Customer Details

Full Name : Reid	Consent Received : Consent by Digital Signature
Street : Edinburgh Technopole	Consent Date : 2007-10-23
Locality :	Category : Land-owner
Country : Scotland	Company Name :
Town : Edinburgh	Contact Number :
County :	Email Address :
Postcode :	

Contractor Details

Company : Bob's Surveyors Limited	Surveyor Name : Bob Surveyor	Contact Number : 0131 555 5555
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Sketch 1



28/01/2005 15:03

Signature

