

# Electricity Supply Reinforcements for Farmers and Growers

## Introduction

When electricity services to farms are altered e.g. supply capacity is increased or a single-phase supply is converted to three phases, there are usually major costs incurred in reinforcing or re-engineering the supply network. The customer in question is usually asked to pay for all or part of this work.

If you are considering installing extra electrical equipment on your unit you will therefore need to investigate the implications with your local Public Electricity Supply Company (PESCO).

These notes aim to explain the system of obtaining supply reinforcements and ease the process for farmers and growers.

## Applying for an Increased Electricity Supply

The following steps are recommended:

1. Detail exactly what equipment you propose to install, e.g. install two 10kW pumps, or an extra eight 630mm fans. If two small motors can be used instead of one large one or if there is more than one selection of new equipment with different electrical loadings being considered, then ask for alternative supply schemes to match.
2. Send your proposal to your local PESCO's planning department.
3. Remember that clear proposals can be speedily answered and small schemes may not require supply reinforcement.
4. Remember that supply reinforcements involving alteration or extensions of the

high voltage network can take six to twelve months, so it is essential to inform your local PESCO at an early stage in the planning. If you are considering new buildings or expansion, their help can be invaluable.

5. Do not always blame your PESCO for the time required. The approximate times involved break down as follows:

Technical proposals & quotation ..	1 month
Wayleaves and Easements .....	2 months
Local Planning Authority .....	6 weeks
Department of Energy .....	2 weeks
Work programming & installation by your electricity company .....	1 month
Minimum for high voltage reinforcement .....	6 months

6. If your initial proposal changes, or is not easily quantified, then this makes it more difficult to progress through the planning stages.
7. Consider future possible expansion plans at the same time as this proposal.

## Electricity Industry Deregulation

### Implications for supply reinforcements

A frequently asked question is; "Could any party other than my local PESCO undertake the work at a lower cost?" Since 1995 this work has been open to competition and, in theory, any suitably qualified contractor can now be involved in network upgrade work. This section discusses the practicalities of employing private contractors.

## Background

The electricity distribution network is owned by, and is the responsibility of, the PESCOs. The network is highly integrated and alterations at one point can affect the quality of supply for other consumers in the locality. As such it has always been the responsibility of the PESCOs to ensure supply integrity. In April 1995, the construction of electricity supply lines and transformers was opened up to competition with a view to allowing electricity customers to obtain competitive quotations and employ private contractors to undertake reinforcement work.

Reinforcement of electricity supplies and the costs involved have been difficult issues for farmers. Often the process has not been well understood and has therefore been regarded with a degree of suspicion. Since deregulation in 1995, although customers have been able to employ alternative contractors, there has not been a large uptake of this option largely for the following reasons:

- Few contractors have been equipped or have had the experience to work on the electricity supply network
- Some schemes have not gained approval from the PESCO and a licence to do the work has not been granted
- The administration, co-ordination and procedures operating between the various bodies involved in a scheme have not been set down and are not well understood
- A reluctance on the part of the PESCO to encourage external contractors to undertake this work.

Nevertheless, it is still possible for such schemes to be carried out successfully.

## Suitable Work

It would appear that straightforward transformer up-ratings together with any low voltage service work would pose few problems to contractors who have the co-operation of the local PESCO. More extensive work which involves the construction of high voltage lines and cables and may include work across private or public land, involves not only greater engineering skills, but requires the adoption of correct procedures to obtain local authority planning permission,

easements and other agency approvals. Wayleaves agreements must be negotiated carefully to secure long-term access and security for the line.

## Administration of H.V. Supply Reinforcement Using Contractors

Any reinforcement of supply has to pass through certain administrative stages. The following notes suggest how private contractors may be accommodated in this process.

### Initial Load Enquiry

This must be submitted to the local PESCO to check on supply availability and the extent of the work required. This design time may well be chargeable. The contractor to be used would also have to be approved and licensed by the local PESCO.

### Wayleaves and Easements

These are the legal agreements between landowners and PESCOs that cover the siting of electrical equipment. There are two possible methods of dealing with this:

- As existing - that is the local PESCO would carry out this work (and possibly charge for this service).
- By the farmer/end user or appointed agents. This would require the co-operation of the PESCO and agreement for the routes.

### Local Planning Authority

Usual application. Possible route for dealing with this as with wayleaves and easements.

### DTI / Department of Energy

If only one supply is involved and the work is entirely dedicated to lines feeding only that one supply, this is deemed as a 'service' and no application is necessary.

If multiple supplies are involved, then notification is required. This is mainly to check that the proposal does not interfere with any possible military or government activities, installations or proposals.

## Work Programming/Installation

This would involve the local electricity supplier in as much that:

- The installation would have to be inspected and approved
- Final connection, shutdown, hand over/ adoption would have to be organised.

## Organisations to Contact for More Information

### Electrical Contractors Association

*ESCA House  
34 Palace Court Road  
London, W2 4HY.  
Tel: 020 7313 4800  
Web: [www.eca.co.uk](http://www.eca.co.uk)*

This association has a list of members categorised into:

- Regions
- Size of contracts undertaken
- Areas of specialist work (including a category for H.V. work).

The organisation has regional officers who know their local members and can identify contractors who would be able to undertake such work. E.C.A. has in the past investigated the implications of H.V. work being carried out by their members (not reinforcement work). To this end they have drawn up a pro-forma of a H.V. training programme and certification.

### OFFER (Office of Electricity Regulation)

OFFER is the watchdog body of the electricity supply industry. The address and telephone number of the local office can be found in your telephone directory under OFFER.

### DTI (Department of Trade & Industry)

*1 Victoria Street  
London  
SW1H 0ET  
Tel: 020 7215 5000  
Web: [www.dti.gov.uk](http://www.dti.gov.uk)*

## Your Local PESCO

You should enquire about documentation on:

- Charges for connection to the distribution system
- A guide to the provision of electricity connections
- Technical requirements for the adoption of methods.

*Farm Energy Centre  
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