



Great Eastern Overhead Line Renewal Programme



Project

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Client

UK Department for Transport

Location

London, UK

Start Date

2007

End Date

2017

Duration

120 months

Contract Value

£250m

Network Rail's Role

Project development and feasibility, project and programme management

Background

In mid 2009, the Department for Transport (DfT) published Britain's Transport Infrastructure: Rail Electrification.

The report confirmed government support for a programme of Electrification, including Liverpool to Manchester railway, with the Lancashire Triangle (i.e. Huyton Junction to Springs Bank Junction and Manchester to Euxton Junction railway) added later in the year to form what has become known as North West Electrification Programme (NWEF).

The DfT subsequently reconfirmed support for NWEF in November 2010 following a Comprehensive Spending Review. It added additional railway routes (Trans Pennine) following a further spending review in November 2011.



Scope of Works

This complex renewal requires:

- ▶ development of a new auto tension overhead line system;
- ▶ installation of 1,000 new structures
- ▶ installation of 200km of contact wire and catenary wire
- ▶ renewal of all system components, including switches and feeds.

All this has proceeded with low impact on the travelling public and in particular avoiding disruption to peak travel.

Key Project Outputs

The main objective of the project is to provide an overhead line system that:

- ▶ is simpler with higher reliability
- ▶ is easier to install / maintain
- ▶ removes the requirement for heat-related temporary speed restrictions in summer, caused by the current system design
- ▶ has lighter loading on structures, to reduce structural repairs
- ▶ makes maintenance and repair simpler and more cost effective
- ▶ facilitates the seven day railway requirements for Overhead Line Equipment maintenance.