



Port Talbot East Re-signalling

Project

Port Talbot East Re-signalling

Client

Department for Transport

Location

Port Talbot, South Wales, UK

Start Date

2005

End Date

2007

Duration

25 months

Contract Value

£57.1m

Network Rail's Role

Project development and feasibility, project and programme management

Background

Port Talbot East Re-signalling (PTER) was the first major project in South Wales' re-signalling programme and the first project using a 'hub and spoke' contracting model. The prime purpose of the project is the renewal of life expired signalling and signalling power supply assets in the Port Talbot East Power Signal Box (PSB) controlled area.



Scope of Works

The work comprised of:

- ▶ renewal of all the signalling at Port Talbot Signal Box comprising 44 route (103 track) kilometres of signalling, five new interlockings, and a new Westcad Signaller's Display Subsystems (SDS) in Port Talbot PSB
- ▶ Solid State Interlockings have replaced the Western Region E10K interlockings
- ▶ two level crossings were renewed (Coychurch and Port Talbot Station), one closed (Hendre Owen) and one manned crossing was converted to CCTV (Pencoed)
- ▶ Port Talbot Signal Box houses the new SDS and the remaining Port Talbot West panel
- ▶ the project included a renewal funded additional engine-depot spur line and new bi-directional capability between Bridgend and Margam as part of the layout rationalisation agreements struck with

stakeholders and particularly the Freight Operating Company (FOC) DB Schenker (DBS).

Key Project Outputs

The project outputs are:

- ▶ renewal of signalling system included the renewal of 215 Signalling Equivalent Units (SEUs)
- ▶ seven additional SEUs were delivered (215 vs 208 SEU scope authorised) as a result of a detail design change in GRIP5 to include an additional signal for risk mitigation, an adjustment to include 3 SEUs for the level crossing interfaces and three for banner signals excluded from the GRIP4 count as a result of an update to the SEU volumes standard BP001
- ▶ the project has closed Pencoed Manually Controlled Barrier (MCB) crossing box with £0.265m p.a. OPEX benefits with a reduction of 5 posts
- ▶ overall spend was £8.218m lower than the financial authority limit including contingency hand-back
- ▶ the project achieved combined scope and delivery efficiency of £41.6m (06/07 prices). The delivered SEU unit rate was £194.5k (06/07 prices) (net of non-SEU costs) delivering total 48.3 % efficiency against a target of 22.1%
- ▶ the project is delivering the expected business benefit of a reliable signalling system to enable the delivery of timetabled service pattern in the area of control. The bi-directional signalling installed between Margam and Bridgend is now used regularly for maintenance possessions. The loops have been upgraded to passenger-train use to allow easier Single Line Working (SLW)
- ▶ there has been a recorded reduction in the previously high rate of power supply failures (new diverse supply and Uninterruptible Power Supply).