

THE EFFECT OF HIGHER SPEED ON OVERHEAD LINE/PANTOGRAPH COSTS

This report extracts results and predictions from previous Technical Reports regarding high speed tests to monitor current collection performance. It also considers potential problem areas relating to overhead line equipment and pantographs, and ascribes costs to them.

It was found that overhead line costs dominate the pantograph costs at all speeds, and will probably increase by a factor of 3 for 260km/h operation over existing costs at 160 km/h, plus some fixed costs to provide additional clearances. The major maintenance costs are likely to be in wear and fatigue of fittings. It is likely that new designs of fittings and droppers would reduce this financial burden, and recommends that these areas of work are pursued.