

ALEXANDER

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ACCREDITATION AND ORGANISATIONS



TAMNAMORE TOWERS

CLIENT	Northern Ireland Electric
DESIGN ENGINEER	Faber Maunsell
CONTRACT VALUE	£240,000
CONTRACT PERIOD	15 weeks



DETAILS

NIE required four new terminal pylon towers for Tamnamore and Dungannon Main substations. Two 275KV towers and one 110KV tower were constructed at Tamnamore, with one 110KV tower constructed at Dungannon.

Due to the very poor ground conditions encountered at Tamnamore all three bases had to be piled using 275mm sq pre-cast driven piles up to a depth of 16m. The 275KV terminal bases had 525m³ of concrete and 25Tonne of reinforcement steel. Templates had to be set up for the cast in stub legs to the tower.

1.5km of site track had to be constructed at both sites to access the tower bases.

Alexander's also erected the two 110KV pylon towers, thus representing the first time that the firm has completed this work for NIE.

HEALTH AND SAFETY CONSIDERATIONS

The two 275KV terminal towers had to be constructed directly under de-energised power lines. NIE diverted the power supply with half the lines using temporary towers positioned directly over the access road. Although an outage was in place for the work area safe working distances still applied. This resulted in restricted working heights and limited the size of piling rig and length of piles that could be used.

For the turbine erection we opted to assemble the turbine towers at ground level and then crane them into position. This eliminated the need for the operatives to climb the towers as a platform was also incorporated.