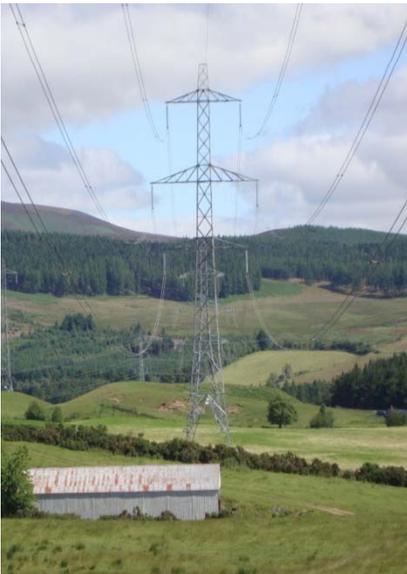




CASE STUDY: 400kV Ring Up-rating Scheme for a UK Power Company



PROJECT BRIEF

LSTC were commissioned by a UK power company to provide an accurate, up to date survey record of the existing 275kV routes to enable a study to be carried out that determined the implications of up-rating the route to operate at 400kV. The total route length of all routes within this scheme amounted to 225km, with a target cost of £165,000.

LSTC'S APPROACH

LSTC allocated 5 Field Survey teams, with 2 men in each team, to the survey work. After data had been collected, it was processed in the office by a team of 4 CAD/Design staff. All teams had section leaders and reported to one common Project Manager. The existing 275kV routes were profiled within a 2D and 3D CAD environment and interrogated using Optimal OHL and PLS CAD/Tower packages. Further to this, the profiles were sagged with the required conductor using new string lengths in order to identify clearance issues. Coordination of the route to OSGB was supplied, together with a comprehensive "As Built" schedule of Tower Detail, Span, Section Lengths, Visible Hazards and Photography of each Tower configuration. The routes were surveyed in our client's order of preference and processed through to profile drawing as the survey was being completed. With several field teams being employed at any one time it was critical for the Project Manager to have continuing weekly contact with all parties involved and to keep our client informed of the whereabouts of all personnel. Having a dedicated Office team meant that it was possible to provide our client with details of any problem spans as soon as they were identified.

PROJECT OUTCOME

The results from this project enabled our client to commence the next phase of work with an accurate record of the existing routes under proposed 400kV conditions, and enabled them to determine whether upgrading was a feasible and cost effective option.

LSTC's OHL Surveys have provided a facility to the electricity industry to enable the creation of accurate profiles for future refurbishments, rebuild and proposed OHL routes. This facility has been maintained for over 50 years, with LSTC keeping its service at the forefront of technology. With new innovations like GPS, Digital Data Capture and digital photography, LSTC has been able to develop and provide clients, consultants, engineers and designers with every requirement needed to provide a satisfactory solution.

Further information available upon request.