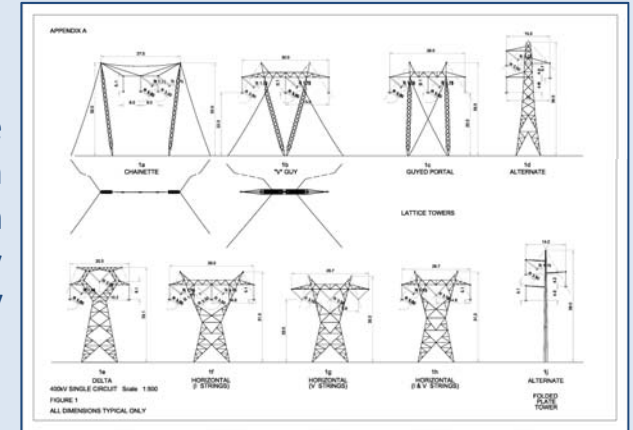




CASE STUDY: Transmission Tower Design Investigation for a UK Consultant

PROJECT BRIEF

LSTC acted as sub consultant for their client whom were commissioned by a national electricity transmission company to undertake a transmission tower design investigation. The purpose of the project was to identify alternative structure designs to the existing 110kV, 220kV and 400kV structures used in the Irish transmission system.



All potential alternative structure designs had to be evaluated against the following criteria: technical merit; Environmental Impact (ecology, flora and fauna, etc); visual impact assessment; Electric and Magnetic Fields (EMF); costs (materials, construction, civil works); construction programme; structure footprint; track record with other utilities; maintainability (live line working, etc).

LSTC'S APPROACH

LSTC produced an initial report detailing the existing different structures and outlining the pros and cons of these.

We then developed a ranking system in order to rate the different structure options against the criteria specified by our client. The 6 highest rated structures were modelled using PLS Tower or PLS Pole: for each of the 6 preferred structure candidates, an outline design was prepared for a suspension or intermediate structure as well as a light angle structure.

LSTC submitted a report to our client which detailed the options identified, the ranking method adopted to rate the options against the criteria specified by our client, and the preferred structure options which emerged from the investigation.

PROJECT OUTCOME

Project ongoing (as of February 2011)

Further information available upon request.

