

TECHNICAL BULLETIN AC MI-01

AC MITIGATION INVESTIGATION

For any AC Mitigation investigation and subsequent modeling, the following data will be required:

TYPICAL ELECTRICAL TRANSMISSION DATA REQUIRED

- Tower geometry
- Tower grounding / earthing details
- Phase conductor arrangement
- Phase arrangement
- Conductor heights
- Conductor separation distances
- Shield wire data
- Locations of any phase transpositions
- Current loading under different conditions namely:
 - Average
 - Maximum
 - Emergency conditions (for power line with multiple circuits)
- Fault information i.e. Duration, magnitude, etc.
- Power line-to-ground fault current at each end of the collocation, number of collocations, parallel runs, as well as at the midpoint. In other words, near the substation, halfway, etc. These are just approximate figures.
- Fault current split in the faulted conductor (i.e. - the current being fed from any of the directions). This will provide an indication of feedback conditions that may exist at a fault site.

PIPELINE DATA

- Physical attributes of the pipeline
 - Detailed depth of cover and centerline location in areas of collocation with the overhead AC lines
 - Coating type and conductance
 - Pipeline diameter
 - Presence of valves, traps, casings, pig launchers, etc.

SOIL DATA

- Accurate soil resistivity data at various layers along the collocation