Q. Regarding the report titled *A Performance Target Methodology for the Distribution Feeders of the Newfoundland and Labrador Hydro Electrical System* (Section H, Tab 4), with specific reference to the planned expenditures on Hawke's Bay 20101 (B-65, Upgrade Distribution Feeders) and South Brook 10107 (B-72, Replace Insulators), please explain why Hydro, in assessing feeder performance, considers all outage statistics for the feeder, as opposed to considering only unscheduled distribution outages.

A. The failure modes of the feeders are distinctive and cannot be evaluated properly or completely by simply considering the 'unscheduled' outages.

Feeder performance statistics are a function of various factors and events under the two main categories of 'scheduled' and 'unscheduled'. It is necessary to study the data in both categories in order to determine the true and complete 'character of the feeder'.

Under 'scheduled' outages there are two main subsets; 1) customer related (i.e. connections or disconnections); and 2) corrective maintenance. The work content under the corrective maintenance subset must be studied and correlated with the components of the 'unscheduled' outages to completely define what upgrade work is necessary to improve performance.

For example, for the two projects named, the study of the unscheduled outages concluded that one of the major causes of poor performance (that could be corrected) was defective equipment. And, of course, defective equipment is more often than not insulators. It was necessary to confirm this conclusion by studying the corrective maintenance work under 'scheduled'

outages to make sure that the insulators had not already been replaced. Had that been the case, the more appropriate action would be to defer further work until the benefit of the 'scheduled' replacements began to show in the performance statistics. For the two projects named, the study of the 'scheduled' outages confirmed there were still a significant number of defective insulators contributing to poor performance. Therefore, the proposal was made for the widespread replacement. Had the 'scheduled' outages not been studied, this fact would have been overlooked.

Thus, the study of the 'scheduled' aspects of the performance indices must be done in concert with the 'unscheduled' aspects in order to determine the full and complete performance profile, and to define what work will be effective in improving performance. Concentration on the 'unscheduled' outages, only, would not be an incomplete analyzing strategy.