

Re Volume III, Distribution – Appendix 4, Attachment A, page 3

Q. What is the basis for the technical criteria stating that the number of customers served through a distribution feeder without backup capability should not exceed 3000?

A. The technical criterion stating that the number of customers served through a distribution feeder without backup capability should not exceed 3000 is based upon Newfoundland Power's distribution engineering judgement.

As the number of customers on a radial feeder is increased, the corresponding number of feeder devices also increases. The greater the number of devices, the higher the probability of experiencing equipment related failure or failure due to something impacting the line. Given the single supply, a failure will remove service to all customers supplied by that radial portion of the feeder. Therefore, increasing the number of customers on a radial feeder will increase the probability that for one failure, larger numbers of customers will experience outages.