Q. In Tab 2.2, Attachment A, pg. 3, footnote 2, third bullet, NP states that "The feeder normal peak loading should be sufficient to permit cold load pickup." Please explain how "cold load pickup" is determined.

A. Cold Load Pickup ("CLPU") is the instantaneous increase in current on a distribution feeder that occurs when the electricity load is restored after an interruption in electricity service. It is the result of the loss of load diversity on the feeder. Many loads normally cycle on and off independently.[1] When service is restored after an interruption, these loads all turn on simultaneously, creating unusually high demand for electricity. On feeders which serve a significant amount of electric heat, the current on the feeder during CLPU conditions can be 2 times as high as the normal winter peak load current. The duration of the CLPU event is typically between 20 minutes and 1 hour, after which time the load will gradually return to pre-interruption levels.

The current-carrying capacity of distribution feeder conductors must be established to ensure the conductor does not become overloaded during CLPU events. For planning purposes, CLPU is assumed to cause 2 times the normal winter peak load current on the feeder.

[1] Loads such as electric heaters, hot water tanks and refrigerators will cycle on when electricity is restored following an interruption.