

DOMINION - CARSON, LADYSMITH SHORT CIRCUIT VIOLATION(S)

PJM performs short circuit analysis as part of its annual Regional Transmission Expansion Plan (RTEP) baseline assessment in accordance with the process outlined in PJM Manual 14B. This analysis includes a study of the entire PJM system based on its current configuration and equipment to determine if the short circuit current interrupting duty of circuit breakers is sufficient for the 2-year planning case. In addition, PJM also performs the analysis on the planned system configuration using a 5-year out case.

As part of the normal RTEP short circuit activities to review both the 5-year and 2-year cases for short circuit analysis, the 2025 PJM short circuit case identified four 230 kV breakers as overdutied in the 2025 time frame. Additionally, Dominion has made several updates to the modeled impedance values in the area of Carson and Ladysmith 230kV substations to achieve more accuracy. Updates for model accuracy are part of the normal process in base case development. As these short circuit modeling updates have been implemented in the PJM cases, two 230kV breakers at Carson and two 230kV breakers at Ladysmith have been identified as overdutied in the near-term (2-year out) short circuit case.

As a result, PJM has determined that the short circuit issues described above create immediate reliability need for which a competitive window is not feasible. PJM has determined that no other transmission or non-transmission options would sufficiently address the immediate reliability need. There were no feasible alternatives considering cost, disruption of service, and Dominion's high load growth. Furthermore, because the 230 kV breakers at the Carson and Ladysmith substations are wholly located inside existing substations owned by Dominion, Dominion will be the designated entity to perform the work to replace the overdutied breakers.