



Zone 3 - 2026 study results

Refer to Table ZS-4 and Figure ZS-12

Summary of key findings

- 69-kV lines between West Middleton and Waunakee substations are exceeding their summer emergency ratings under single contingency conditions,
- Waunakee Industrial Park-Huiskamp 69-kV line is approaching its summer emergency rating under single contingency condition.

The 2026 results suggest that further study of Zone 3, particularly around Dane County area, is needed to identify an appropriate long-term solution for this area that may be required beyond the year 2020.

Thermal overloads were observed on the Y-131 Waunakee - West Port 69-kV line and the 6963 West Middleton-Pheasant Branch 69-kV lines under single contingency conditions. Rebuilding West Middleton-Pheasant Branch 69-kV line with double circuits in 2022 could be a potential long term solution to address these two potential constraints.

Past 10-Year Assessments determined the Portage – Trienda 138-kV line could experience thermal issues under various contingencies. The provisional project was to uprate the line by 2022. While thermal issues were not seen with the Portage – Trienda line in the 2011 10-Year Assessment analysis, the 2022 In-Service date was retained until we can be assured the thermal issues won't return in the next few 10-Year Assessments.

Past 10-Year Assessments determined that 345/138kV transformation was needed in the North Randolph area to support the area. The provisional project was to construct a 345kV bus at North Randolph and loop the Columbia – South Fond du Lac 345kV line into North Randolph. The need for the transformer was not seen in the 2011 10-Year Assessment. While need drivers did not appear in this 10-Year Assessment, the 2025 In-Service date was retained until we can be assured the area needs won't return in the next few 10-Year Assessments.

The provisional project of constructing a Hubbard-East Beaver Dam 138-kV line will address not only several 69-kV thermal overloads, but also the low voltages in the Beaver Dam area for an outage of the North Randolph-North Beaver Dam 138-kV line. While the 2011 10-Year Assessment didn't show a need this year, the 2020 In-Service date was retained until future 10-Year Assessments indicate the need is no longer there.

No performance limits were exceeded for Category A conditions for all 2026 analysis.



10-Year Assessment

An annual report summarizing proposed additions and expansions to ensure electric system reliability.

2011

September 2011 10-Year Assessment
www.atc10yearplan.com

Assessment of Steady State Compliance with NERC Standards

The mitigation plans comprised of planned, proposed and provisional projects identified for Zone 3 in this Assessment will allow the ATC system in Zone 3 to meet the steady state portions of NERC standards TPL-001 and TPL-002 in each of the five years 2012-2016, and for the 2017-2021 planning horizon.