

Western and Central Massachusetts (WCMA) – 2029 Solutions Study Scope of Work Update



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Purpose

- Provide an update concerning the WCMA 2029 Solutions Study Scope of Work



Overview

- Background
- WCMA 2029 Needs Assessment correction
- Solutions Study area description
- Objectives
- Solutions Study assumptions update
- Schedule/next steps



Background

- The WCMA 2029 Needs Assessment was presented to PAC on February 20, 2020 and the final report was posted on May 5, 2020
- See the WCMA Key Study Area of the ISO external website for applicable documents*
- The WCMA 2029 Needs Assessment identified:
 - Time-sensitive, N-1 and N-1-1 PTF voltage violations under peak load conditions along the A1/B2 69 KV line corridor between Vernon station in Vermont and Pratts Junction station in Massachusetts (A1/B2 corridor)
 - No other thermal or voltage violations in the WCMA study area

* <https://www.iso-ne.com/system-planning/key-study-areas/western-and-central-massachusetts/>



WCMA 2029 Needs Assessment Correction

- At the conclusion of the WCMA 2029 Needs Assessment, the ISO stated the Solutions Study process would not begin due to the proposed National Grid Western MA DER Cluster Study Group 2*
- Many proposed transmission topology changes were identified in the A1/B2 corridor to accommodate the interconnection of the DER projects
- The ISO proposed that once the PPAs have been approved for the National Grid Western MA DER Cluster Study Group 2, a new Needs Assessment for the A1/B2 corridor would be initiated

* https://smd.iso-ne.com/operations-services/ceii/rc/2020/05/a3_1_nep_western_mass_group_2_cluster_generation_and_transmission_project_lvl_3_ppas.zip

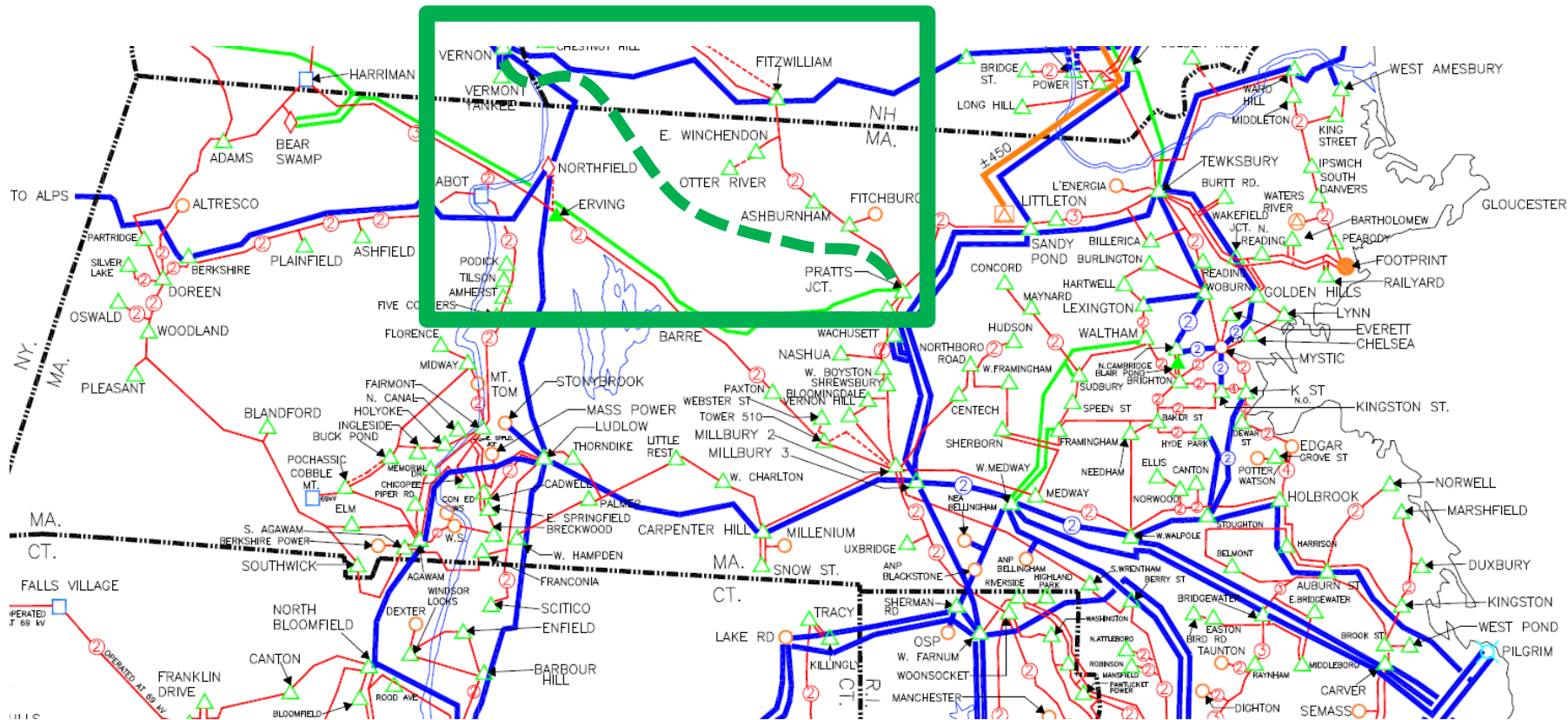


WCMA 2029 Needs Assessment Correction

- Section 4.1(f) of Attachment K of the OATT states “the ISO shall incorporate or update information regarding resources in Needs Assessments that have been proposed and (i) have cleared in a Forward Capacity Auction pursuant to Market Rule 1 of the ISO Tariff, (ii) have been selected in, and are contractually bound by, a state-sponsored Request For Proposals, or (iii) have a financially binding obligation pursuant to a contract”
- Since none of the components in the National Grid Western MA DER Cluster Study Group 2 meet any of the criteria of Section 4.1(f), the DER and associated transmission upgrades can not be included in a Needs Assessment
- The ISO should not have taken the position to wait for the PPA approval of the Western MA DER Cluster Study Group 2 and to begin a new Needs Assessment for the A1/B2 corridor, but rather a WCMA 2029 Solutions Study should have been initiated
- The posting of the WCMA 2029 Solutions Study Notice of Initiation on February, 24, 2021 marks the start of the Solutions Study effort

Solutions Study Area Description - Geographical Map

WCMA A1/B2 69 kV Line Corridor Study Area Vernon to Pratts Junction



The map is shown for reference only and does not include all of the latest topology changes.

For a high resolution version of the system diagram, please go to: <https://www.iso-ne.com/about/key-stats/maps-and-diagrams>

Note the A1/B2 69 KV line corridor is added for illustrative purposes and is not part of the high resolution version of the system diagram

Objectives

- The objective of the Solutions Study is to investigate regulated transmission solutions to remedy the A1/B2 corridor time-sensitive reliability criteria violations in accordance with applicable NERC, NPCC, and ISO standards and criteria



Solutions Study Assumptions Update

- The WCMA Solutions Study will:
 - Utilize the final cases and study files from the WCMA 2029 Needs Assessment
 - Since the needs observed along the A1/B2 corridor were not dependent on the variations in dispatch in the East to West (A dispatches) and West to East stresses (B dispatches), only one East to West dispatch and one West to East dispatch will be used
 - Limit the analysis to steady state, peak load testing since only peak load voltage violations were observed in the WCMA 2029 Needs Assessment
 - Utilize the contingencies impacting facilities along or around the A1/B2 corridor only
 - Include the reconductoring of A1/B2 lines and the replacement of Deerfield #4, Vernon, and Chestnut Hill asset condition projects* in the cases before solution alternatives are developed
 - Although the projects have a status of Concept because cost estimates were not discussed at the PAC, the projects will be included in the cases because National Grid has signaled their intent to proceed with the projects
 - National Grid plans to bring the four projects to the PAC to review the details and cost of the projects in the future
 - Conduct a short circuit analysis once solution alternatives have been developed

* The projects were presented to PAC in April 2020 - <https://smd.iso-ne.com/operations-services/ceii/pac/2020/04/a2-national-grid-asset-condition-projects.zip>



Schedule/Next Steps

- Please submit comments on the materials in this presentation to pacmatters@iso-ne.com by April 1, 2021
- Present the WCMA 2029 Solutions Study results to PAC in Q2 or Q3 of 2021

Questions

