Transmission Planning Technical Guide Update

Short Circuit Requirements

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Purpose

- To review the proposed set of standard assumptions for conducting short circuit analyses using ASPEN OneLiner
  - This single set of prescribed study conditions and solution parameters will apply to all short circuit analyses

Background

- All of the study types that incorporate short circuit analysis were reviewed to identify the appropriate practice:
  - Generator interconnection studies
  - System impact studies for transmission system changes
  - Needs Assessments and Solution Studies
  - NERC and NPCC compliance studies

Benefits

- A single set of prescribed study conditions and solution parameters will ensure consistency across the various study efforts and will provide clarity regarding the specific impact of proposed changes
- The proposed conditions and parameters were tested and benchmarked to ensure acceptable reflection of the current and planned power system performance

Transmission Planning Technical Guide Updates

- The following sections in the Transmission Planning Technical Guide (TPTG) were modified to incorporate these changes:
  - Section 2.1 – Base Case Topology
  - Section 3.2 – Short Circuit Criteria
  - Section 4.1.3 – Short Circuit Analysis
- The ASPEN OneLiner specific changes have also been included in Appendix A of this presentation

Conclusion

- Proposed Short Circuit settings
  - Establish a standard solutions profile
  - More accurately reflect the short circuit case and the system it represents

Next Steps

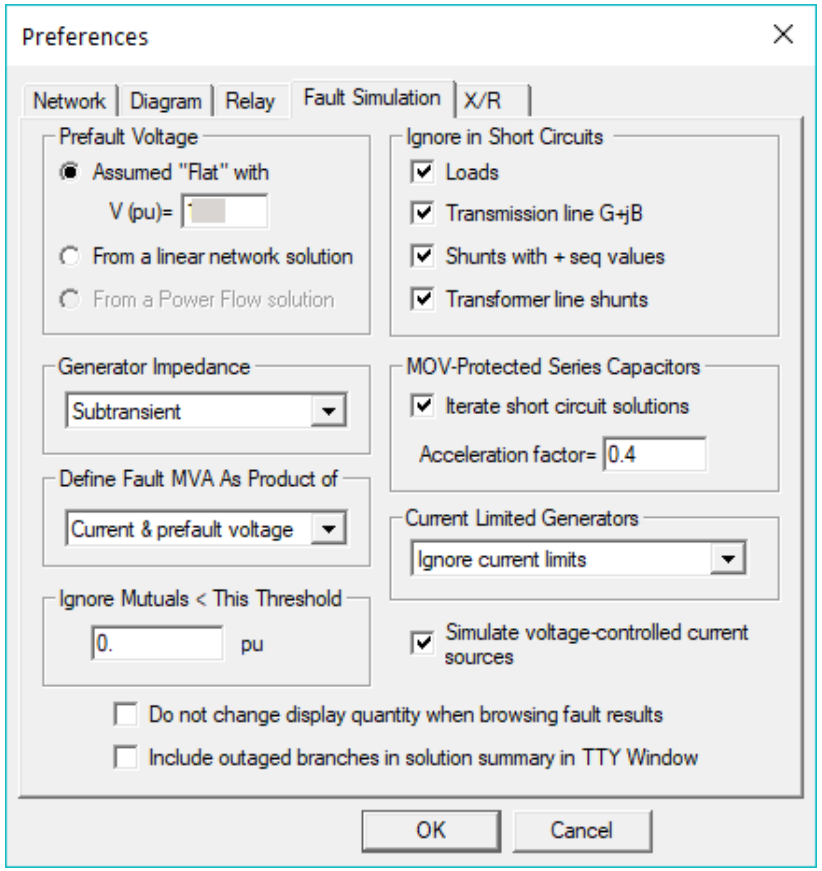
- The draft changes to the TPTG have been provided along with this presentation
- Please provide comments related to these changes to pacmatters@iso-ne.com by October 1, 2019

Questions

APPENDIX A – ASPEN OneLiner (14.7) Settings

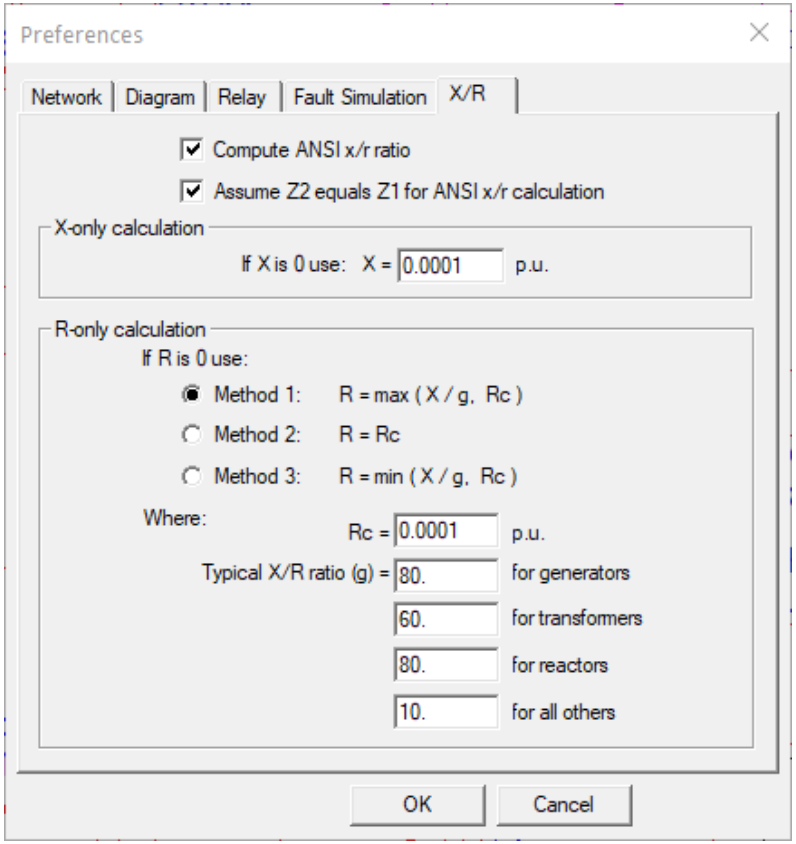
ASPEN OneLiner Settings

Fault Simulation



ASPEN OneLiner Settings

X/R



ASPEN OneLiner Settings

ANSI/IEEE Breaker Checking Options