Minimum, Light, and Shoulder Loads

Update to the Transmission Planning Technical Guide

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Purpose

- To clarify the loads to be assumed in Minimum, Light, and Shoulder Load levels

Background

- An update to the Minimum Load level was discussed at the November 16, 2017 Planning Advisory Committee (PAC) meeting*
- As part of that presentation, the Minimum Load level was revised downward based on the trend of historic hourly loads
  - Value changed from 8,500 MW to 8,000 MW
- Additionally, a correction was made to the handle the paper mill loads (mill loads) so that they are now included in the 8,000 MW total
  - These loads are industrial loads that have been modeled separately because their non-conformance to the typical load cycles is important given their relative size and location
- Unfortunately, the correction has introduced some confusion

*Transmission Planning Assumptions, Probabilistic Methodology/Implementation and Minimum Load Level Update, November 16, 2017, https://www.iso-ne.com/static-assets/documents/2017/11/a6_transmission_planning_assumptions_methodology_implementation_and_min_load_level.pdf

Background, continued

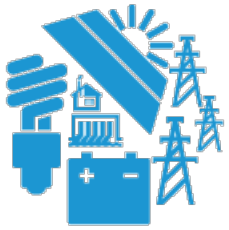
- Based on the November 2017 presentation, one could figure out the “non-mill” load to be represented in the Minimum Load models
  - Total New England Load = mill load + non-mill load
  - Total New England Load – mill load = non-mill load
  - 8,000 MW – 320 MW = non-mill load
  - 7680 MW = non-mill load

Problem

- As currently written in the Transmission Planning Technical Guide (TPTG), the total New England Minimum Load is expressed as 8,000 MW, which includes the mill load
  - With the mill load described as being part of the 8,000 MW of New England load, it is not clear what should be assumed if a mill load of less than 320 MW* is considered
  - As an example, consider the retirement of a mill
- One interpretation could be that the rest of the load in New England is scaled up to keep the total load at 8,000 MW
  - This has the effect of saying that if a mill retires, the remaining customers in New England will consume more electricity to keep the total the same
  - This is not a realistic outcome
- As shown on the prior slide, the intent was to model non-mill load of 7,680 MW and add onto that any mill load
- Therefore, the TPTG will be modified to describe the modeling as 7,680 MW plus the mill load. This prevents the non-mill load in New England from changing dependent on the assumption of the mill loads
- Since the Light Load level and Shoulder Load level sections are similar, changes will need to be made in those sections as well

*This value is based on the November 2017 presentation. System models may be using a slightly different value.

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 April 3, 2019

Questions