

Update on Future LFU Work

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May 30, 2023

Summary

- **Following the conclusion of the LFU Phase 3 analyses, this presentation summarizes ongoing and future planned LFU development work of interest, including:**
 - Model-based synthetic load shapes
 - Winter LFU development
 - LFU BTM solar adjustments

LFU Phase 3 Conclusion

- **The NYISO plans to discontinue further analysis on variable LFU scaling, and instead move toward model-based load shape development**
 - Implementation of the steep 2013 load shape in the upper LFU bins as a result of the LFU Phase 2 analysis significantly reduced the load risk at upper hours relative to the prior shapes
 - There is concern that further scaling the 2013 shape may result in understating the appropriate load levels at the extreme upper-bin temperatures. Significant additional analyses would be required to gain confidence in an appropriate variable scaling method
 - Model-based load shapes will be designed with appropriate load duration characteristics, and will result in a better representation of future load patterns

Model-Based Load Shapes

- **Model-based synthetic load shapes reflecting expected load patterns in future years**
 - Would account for the evolving seasonal and hourly impacts of heating electrification, electric vehicle charging, behind-the-meter solar, and other technologies
 - Initial synthetic load shape development is underway, with additional work planned in support of future planning studies
 - Timeline: ongoing multi-year effort

Winter LFU Development

- **Explore dynamic winter LFU multipliers that quantify the increasing impacts electrification will have on extreme winter peak load levels in future years**
 - Primary impacts are due to heating electrification, which will directly impact winter load weather sensitivity and the resulting LFU multipliers in future years
 - There may be secondary electric vehicle impacts, as battery charging is less efficient in colder temperatures
 - Potentially used in support of future planning studies
 - Timeline: work to commence in 2023

LFU Solar Adjustments

- **LFU Phase 3 results indicated that net load summer LFU multipliers are likely to increase as BTM solar penetration increases**
- **The NYISO plans to develop and test solar-adjusted LFU multipliers, with the goal of implementation in future IRM studies**
 - **Timeline: analysis to conclude in 2023**
- **Alternative approach - model BTM solar as a resource**

Next Steps

- Ongoing internal LFU analyses and development
- Presentations and discussion at LFTF and ESPWG
- Share progress and results with ICS

Questions?

Our Mission & Vision



Mission

Ensure power system reliability and competitive markets for New York in a clean energy future



Vision

Working together with stakeholders to build the cleanest, most reliable electric system in the nation