PJM Notes on Zonal Graphs Posting

By request, PJM has posted a file containing weather normalized (WN) load plots and associated trends with forecast lines. This data is pulled from the following posting: https://www.pjm.com/-/media/committees-groups/subcommittees/las/2021/20210903/20210903-item-05c-summer-and-winter-forecasst-comparisons.ashx. As stakeholders view this document, we wanted to note a few things about this type of comparison.

The WN values in our posting and the posted zonal graphs file are from the methodology used to produce the 2021 Load Forecast ***not*** with the methodology updates we are discussing for the 2022 Load Forecast. We plan to post new WN values prior to the October 4th LAS to help further guide the discussion. Note though that the PJM Forecast does not use WN values to produce the forecast, they are purely informational.

Caution should also be used when evaluating forecasts versus the trend of WN values. In many cases, a trend model alone does not carry much explanatory power. Explanatory power of a model can be calculated by looking at the R-squared statistic (a plot can be found below). For the RTO, a trend model for WN yields an R-squared of 0.6 in the summer and 0.3 in the winter. This could alternatively be stated that the trend variable explains just 60% of the movement in the summer and 30% in the winter, meaning it fails to explain 40% and 70% of the trend in WN respectively. For the zones, we find explanatory power of trend models at 50% on average for summer and winter. Considering these observations, trends have value, but they should be viewed with caution when using as a benchmark for evaluating forecasts.